

LAND ECONOMICS

a quarterly journal of

PLANNING, HOUSING & PUBLIC UTILITIES

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FEBRUARY, 1948

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Toward a Farm Housing Policy

By ROY J. BURROUGHS*

THE homes of families who live on farms are more frequently overcrowded and in disrepair and are less frequently equipped with running water, electricity and other modern conveniences than are the homes of families who live in towns and cities. Despite much improvement in recent years, farmhouses still need a great deal of modernization and replacement if they are to be on a par with urban houses. In one feature farmhouses are superior to urban houses: for the most part they are well spaced on the land and are not crowded together as are many urban houses.

The extent and location of housing improvements and construction required on farms depends upon the number of families who expect to earn a living from the future economy of each rural region. Many farms need to be so regrouped that each farm family will have an acreage that is adequate for a living income. Other farms require readjustment in the

farming plans to assure reasonably profitable returns. Before major investments, whether by individuals or by governmental units, are made in housing the question of whether these basic reorganizations in the rural economy and of the internal pattern of the farming enterprises are necessary needs to be examined.

It seems to be generally recognized among those who have considered the subject that public policy should be so framed as to give recognition to the needs of rural people for improved housing. Nevertheless, in view of the lack of value premises or common goals, there is not agreement either on policy or on the means for implementing policy. The purpose of this paper is (1) to review the problem of housing rural people by describing housing conditions, (2) to propose a statement of farm housing policy, and (3) to consider some of the problems of implementing such a policy with particular reference to financing.¹

* Bureau of Agricultural Economics, U. S. Department of Agriculture.

¹ For helpful suggestions in the preparation of this article thanks are due to Professor Paul Matthew Stoner of the University of Notre Dame, formerly of the National Housing Agency. Particular credit should go to the members of the Working Group on Housing of the former Interbureau Committee on Postwar Programs of the De-

partment of Agriculture and especially to Raymond C. Smith, Chairman of that Committee and Assistant Chief, Bureau of Agricultural Economics. The Misses Sherman and Colvin, also of the Bureau, gave sympathetic and skillful editorial assistance. Data have been checked under the direction of Mrs. Lucy R. Hudson. The opinions expressed in this article are not necessarily the official view of the Department of Agriculture.

The Housing Problem

Housing Conditions. There were 5,859,000 farms in continental United States in 1945.² A farm is defined by the Census of Agriculture to include "agricultural enterprises of as much as three acres, or smaller tracts with annual production of \$250 or more." On approximately the same number of farms as in 1945, there were, in April 1947, an estimated 7,499,000 rural-farm dwellings, not counting some farm dwellings located within urban limits. Of this number of rural-farm dwellings, 193,000 were reported to be not habitable. Only 179,000 vacant rural-farm dwellings were habitable and for sale or rent. The remaining vacant units were not on the market.

Farm housing has improved considerably since the Census of 1940 was taken. At that time about one-third of the rural-farm houses were reported to be in need of major repairs and one-sixth were overcrowded. According to a sample survey made by the Census in April 1947, only about 19 percent of rural-farm houses were in need of major repair and only about 10 percent of the occupied units were overcrowded.³ In 1940, only 31 percent of farm houses had electric lights; in 1947 about 59 percent were electrified. In appraising the significance of these figures, some allowance must be made for sampling errors and for differences in personnel, time, and perhaps in instructions to enumerators. Moreover, some observers believe that improvements have been more frequent near the periphery of cities than in the commercial farming areas. Nevertheless, the evidence suggests that although material shortages must have retarded repair and modernization during wartime, since then—when materials have been less short—farm-houses have been considerably improved.

High farm income has helped greatly to make such progress possible.

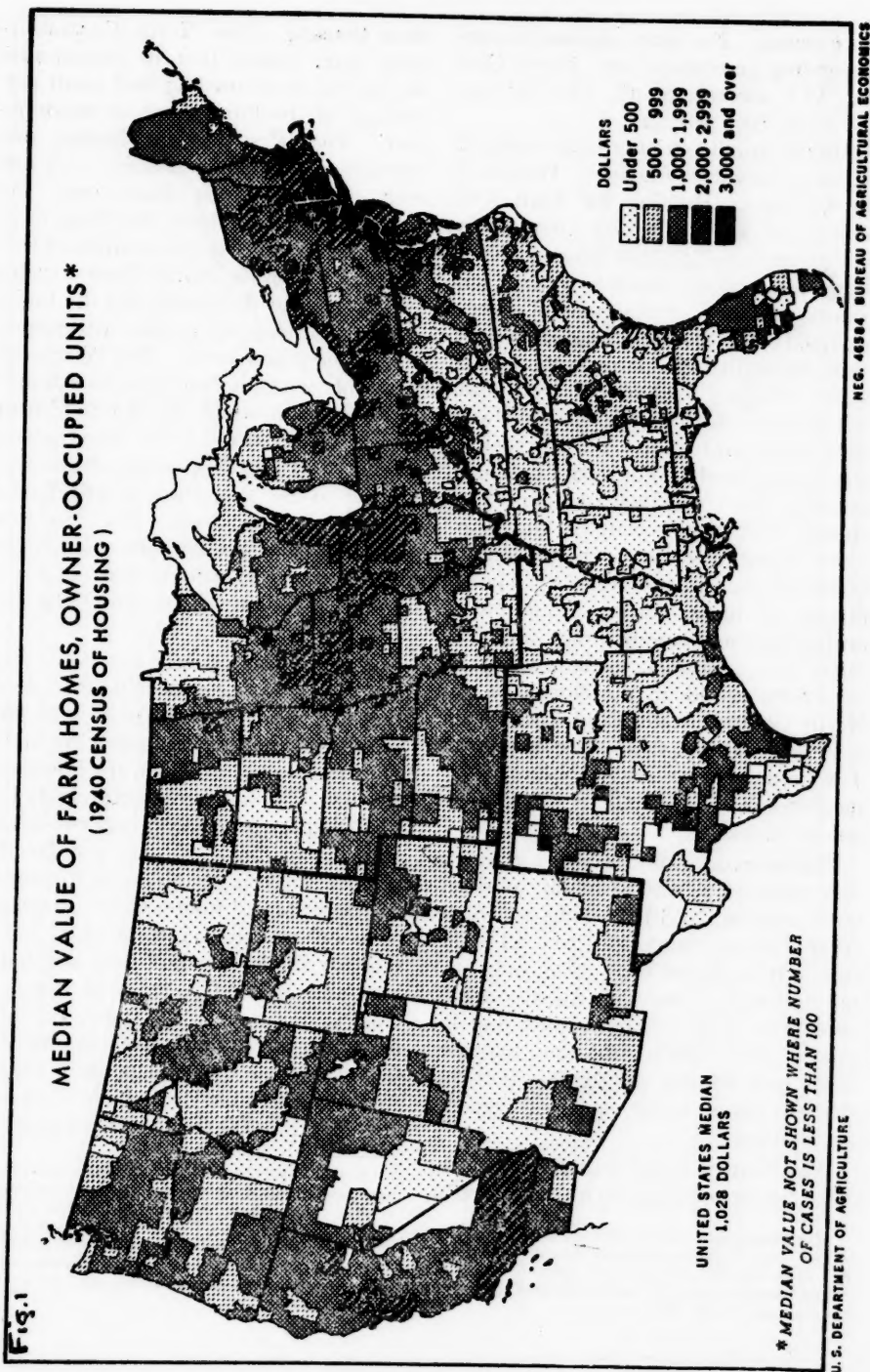
The deficiency of farm housing compared with urban housing, though not so marked as in earlier years, still is much in evidence. In April 1947, 18.9 percent of rural-farm dwelling units were in need of major repairs as compared with 6.8 percent of urban units. Although 67.3 percent of rural-farm dwellings lacked running water, only 4.5 percent of urban dwellings lacked this facility. Only 20.1 percent of farm dwellings had private bath and flush toilet but 83.9 percent of urban units were so equipped. About 59 percent of farm dwellings and 98 percent of urban dwellings had electric lights. Whereas 83 percent of the urban housing units possessed all designated modern facilities, such as lights, running water, bath, and flush toilet, only 19 percent of farm dwellings were as well provided.

It is commonly supposed that city families live under more crowded conditions than do farm families. They do lack the spacious reaches of the open country but when people per room are counted it is found that proportionately more farm dwellings than city dwellings are overcrowded. According to the Census survey of April 1947, 9.9 percent of occupied rural-farm dwelling units had 1.51 or more persons per room. The corresponding figure for the urban places was 4.4 percent. Small dwellings were somewhat more frequent in the city than in the country. A reported 24 percent of urban dwellings had three or fewer rooms as compared with 21.6 percent of rural-farm dwellings.

Sharp regional differences in rural-farm conditions exist. One of the most striking differences is in the number of rooms per dwelling. In the Northeast 76.4 percent of all dwellings have six or

² Series Census—BAE, No. 9, August 12, 1947.

³ Series Census P-70, No. 1.



more rooms. For other regions the corresponding percentages are: North Central, 59.2 percent; South, 23.8 percent; and West, 30.1 percent.⁴

Almost equally striking is the regional difference in value of houses. Data from the Census of Housing for April 1940 were used to obtain this comparison. The accompanying maps (Figs. 1 and 2) show the county median values and county median monthly rents of owner-occupied and tenant-occupied houses, respectively, in each county of the United States. County lines are obscured in the reproduction but the original data were solely on a county basis. The Census estimated the monthly rent to be equivalent to one percent of value. In general, it appears that owner-occupied houses are worth more than are tenant-occupied houses in each of the regions. The influence of higher urban valuations is evident in those counties that contain a major city. County median values of rural-farm houses in the Northeast, the North Central States, and the Pacific States are above those of other areas. The South reflects almost uniformly low median values; especially is this true for tenant houses.

Census records indicate that the Northeast region ranks first in quality of rural-farm housing. With 85.6 percent of its rural-farm dwellings electrified, 43.5 percent with bath and flush toilet, only 35.1 percent without running water, only 10 percent in need of major repair, and 1.7 percent overcrowded, the area has relatively high housing standards. It is true that the urban influence here is exceedingly strong.

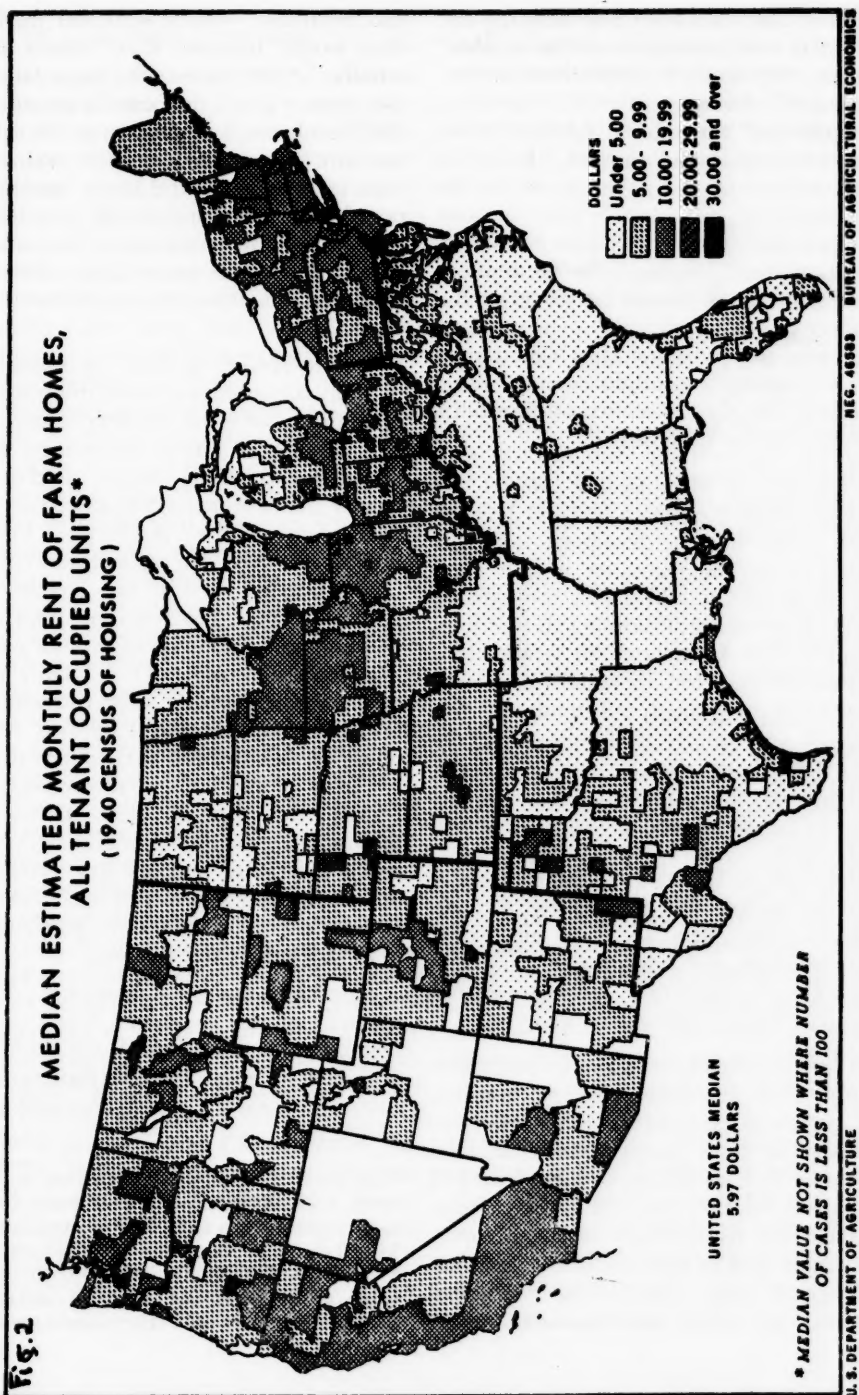
The North Central States vie with the West for second place in quality of rural-

farm housing. The North Central region ranks second best in comparative absence of overcrowding and small percentage of dwellings needing major repair. The West has the highest percentage of overcrowded units, 15.5 percent. But the West shows only 37.9 percent of its rural-farm dwellings to be without running water as compared with 66.5 percent in the North Central region which, next to the South, has the lowest standard among the regions with respect to this particular item. The West ranks favorably with the Northeast in extent of electrification, while the North Central region places third. The West also is second and North Central third with respect to the proportion of units having flush toilet and bath. For the most part, the South suffers by comparison with the other regions but it has a slightly lower rate of overcrowding than does the West.

On the basis of data for 1940, some exploratory work has been done to determine the relation of the quality of farm housing to the income-producing capacity of the farms on which the houses are situated.⁵ It was estimated roughly that 2,560,000 farm operators had enough income from farming and non-farming work in 1939 to permit them to support an "acceptable" house, either as tenants or as owners (gross income of \$1,500 or more or \$8,000 worth of land and buildings and at least a team of horses or equivalent power). Of these, 1,500,000 lived in "acceptable" dwellings, 660,000 in "repairable" dwellings, and 400,000 in "nonrepairable" dwellings. An estimated 3,200,000 farm operators had in-

⁴ The geographic divisions contained in each region are: *Northeast*, New England and Middle Atlantic; *North Central*, East North Central and West North Central; *South*, South Atlantic, East South Central, and West South Central; *West*, Mountain and Pacific (Figs. 1 and 2).

⁵ By John C. Ellickson, Bureau of Agricultural Economics, from unpublished Census records. The data were contained in "The Farm Housing Problem" prepared by a working group of the Interbureau Committee on Postwar programs of the Department of Agriculture and included as Exhibit B of statement of Assistant Secretary of Agriculture, Charles F. Brannan, before the Senate Banking and Currency Committee, March 18, 1947.



sufficient incomes from both farming and off-farm work to support an "acceptable" house. Of these, 560,000 lived in "acceptable" houses, 1,040,000 lived in "repairable" houses, and 1,600,000 lived in "non-repairable" houses. It is not the purpose of this paper to review the character of such data. They at least suggest some useful categories for classification of rural housing. The assumptions and procedures should be given careful testing by future research. The numbers reported in any given class would vary with economic conditions and would depend on the standard of liveability chosen by the investigator.

Character of Farm Housing Market. It seems inevitable that any rural housing policy that may be developed would be adapted to the character of the rural housing market. Much of the existing inventory of rural housing is in joint supply with farm land on which agricultural enterprises are conducted. New farm housing, though independently produced, becomes, as it is built, inextricably linked to the agricultural plant. Thereafter the farm and the farmhouse are in the same legal package. Title to the land conveys title to the house. Moreover, the demand for a farm usually carries with it the demand for a farmhouse. The demand is a joint one. Even tenant and bunk houses, like residences of operators, have somewhat similar market characteristics.

Farmers are more and more coming to appreciate the value of good housing. Farm wives, many of whom have been to college or have taken home economics courses in high school or have had 4-H Club experience, usually know what good homes are like. Many of them appreciate, at least in some measure, that well-designed and adequately-maintained houses are more efficient, comfortable,

and healthful. Given sufficient income they would improve their houses materially. Nevertheless, the farm land is the primary good; the house is secondary. The farmhouse is secondary to the farm, not only because the farm is the source of cash income while the house usually is not, but because historically the house was given a low valuation in the frontier rural culture. In some communities big barns and small houses are obvious contrasts.

Debt for Housing Avoided. It is said that in many communities farm families abhor to contract debts for building or improving the houses almost as though such debts were immoral. In the mind of the farmer the cash income produced by the farm plant justifies "productive" investments, as they are sometimes called. Often unrecognized is the amenity or psychic income produced by improved housing, unfortunately sometimes called "unproductive investment." Only partially recognized is the extent to which a properly planned and equipped farmhouse may contribute to efficiency in the economy of the household—perhaps releasing work time for other duties, improving the quality of marketed dairy, fruit, vegetable, and poultry products, and improving the health and thus the labor efficiency of the family, particularly of the housewife and children.

Secondary Status of the Farmhouse. Some measure of the secondary status of the farmhouse, compared with the land, was obtained in a multiple-correlation study made in Chester County, Pennsylvania, in 1923:

"On small farms of less than thirty or forty acres, a \$4,000 dwelling added about \$4,000 to the value of the farm. On larger farms a \$4,000 dwelling added only about \$3,000. A \$10,000 dwelling added about \$5,000 to the value of the farm. A dwelling valued at \$15,000 or more, no matter how expensive

the dwelling was, would not add more than \$6,000 to the value of the farm."⁶

Presumably, even in 1923 a considerable urban influence partially determined the character of these findings in Chester County. Persons who receive off-farm incomes probably were an appreciable factor in determining the price of houses on small farms near urban areas. In a strictly rural environment perhaps the \$4,000 house on a 30- or 40-acre farm would have been less favored in the absence of urban workers seeking "part-time" farms.

It is commonly said that in many communities farmers must be convinced of the need for improved housing before they will undertake improvements. This seems to be attested by evidence from the Census that in 1940 one farm in nine had no toilet facilities of any kind. This indicates a widespread lack of interest in improved and sanitary housing on the part of families who now live without such facilities. A little personal labor would remedy this situation. Although not all such families can be convinced of the desirability, in fact the compelling necessity, for doing something for themselves, outside aid still may be justified on the ground that improved housing is a device whereby the children are given an improved standard which they may retain. If the adult generation is beyond improvement the children still may have good possibilities, if they are given the experience of living in improved houses.

Education as to good housing standards is needed by the higher as well as by the lower income groups of farmers. An official of the Rural Electrification Administration recently visited his boyhood community. A thrifty old farmer proudly told him how electricity, running

water, and toilet facilities had been installed in the old homestead. Then the farmer observed, "My daughter-in-law insisted on the improvements but now I wish we had had them for Mamma. We could have had them for her as well as not."

Farm Housing Policy

The Congress in 1937 declared the housing policy of the United States to be:

"... to promote the general welfare of the Nation by employing its funds and credit ... to assist the several States and their political subdivisions to ... remedy the unsafe and insanitary housing conditions and the acute shortage of decent, safe, and sanitary dwellings for families of low income, in rural or urban communities, that are injurious to the health, safety, and morals of the citizens of the Nation."⁷

This policy statement is confined to helping persons with low income. In practice, the public housing program has been applied mostly to urban areas.

Shelter Among Several Basic Needs.

Housing should be seen in its relation to other consumer needs. Before very long the American people may have the outlook and courage to adopt minimum standards of consumption below which families need not fall. A minimum standard for education has already been established in most communities. Nutrition, medical care, clothing, and housing are types of consumption goods and services for which minimum standards would seem requisite if the vicious circle associated with a poor start in life is to be broken.

Improved Housing for All Classes. With respect to rural housing, it would seem desirable to promote *improved housing for all groups* and to *assure all farm families, irrespective of their economic capacities, the opportunity for safe, sanitary, and decent*

⁶ Study by Mordecai Ezekiel and reported by him in a paper, "Appraisal Data and Future Stabilization of Values," read before Joint Committee on Appraisal and Mortgage Analysis, Washington, D. C., Nov. 20, 1937, p. 7.

⁷ U. S. Housing Act, P. A. 412.

shelter which conforms to climatic variations and to local customs. Such a policy would be broad enough to be significant to all income groups.

Value Premise. Any rural housing policy that would benefit all income groups would be premised on the value judgment that good housing is sufficiently in the public interest to warrant the expenditure of public funds to encourage its achievement.

Such a premise seems to be in accordance with democratic standards but is difficult to support statistically. It is known, for example, that overcrowding within farmhouses is more prevalent than overcrowding in urban houses. It has not been positively proved that *for this particular reason* the health of overcrowded families suffers, that their morals are any more lax, or that they enjoy life any the less. Though the effect has not been statistically measured, the improved efficiency that may result from well-planned and well-equipped farm kitchens can readily be visualized. The greater efficiency reduces work and improves the chances for good health for the housewives. No one will question the comfort, propriety, and sanitary superiority of an inside flush toilet compared with the outdoor privy, even though the latter can be made sanitary in open country. In the dwelling, insulation against excessive heat or cold, a convenient and sanitary water supply, adequate repair of walls or roofs, screens against insect pests, tight floors, and many other improvements, including perhaps painting, wallpapering, landscaping, and other additions to the amenities of rural living, should be considered by many families. Such improvements are particularly important to the womenfolk and would provide a healthful and comfortable setting in which

to rear children. Consideration of these will come with education and education usually requires expenditures of public funds.

Aids Reduce Inequality. Any aid for the improvement of housing given specifically to low-income families represents a form of secondary distribution of income and represents some, though presumably not a marked, reduction in the existing degree of inequality. This applies to farmers also. Sampling surveys of the Bureau of Agricultural Economics in 1945 revealed that perhaps 10 percent of the farm operators held 70 percent of all demand deposits owned by farm operators, and about 10 percent of the farm operators (not necessarily the same farmers as held large deposits) held about three-fourths of the United States savings bonds that are held by operators. About half of all the surveyed farm operators had no demand deposits and about half had no bonds. No doubt many of the farmers without deposits were also those without bonds.⁸

The reduction of higher incomes by taxation or other means presumably would reduce the satisfaction or utility of real income enjoyed by the upper income groups less than it would add to the satisfaction of those at the bottom of the scale. This is not to dispute the possibility that savings might be reduced by such a leveling. On the other hand, rightly or wrongly, the under-consumption school of thought would consider a reduction of savings in favor of higher and less unequal consumption as essential to achieving fuller and more consistent utilization of resources.⁹ In any leveling process caution is needed not to disturb the function of income both as an incentive to productivity and as a device for allocating labor and resources.

⁸ Balance Sheet of Agriculture, 1946. U. S. Dept. of Agr. Misc. Pub. 620.

⁹ For a recent restatement of this point of view see H. Gordon Hayes, *Spending, Savings and Employment*, (Knopf, N. Y., 1947).

Freedom of Consumers' Choice. The extent to which low-income families are allowed complete freedom of consumers' choice in the expenditure of public grants is important. The foregoing suggestion that every farm family be assured the *opportunity* for shelter that conforms to minimum standards carries an implication of considerable freedom. Yet public resources may be misapplied if undue freedom is granted. The question is twofold: (1) Shall families be required by public compulsion *not* to live under insanitary or indecent conditions or *not* to pursue an unfavorable practice with respect to any consumption good—housing, food, or other necessity; or (2) shall families merely be given the *opportunity* to reach adequate consumption standards? Compulsion would especially benefit the younger generation and perhaps it would protect society in general from disease-breeding conditions, but it would violate the American creed of freedom of choice.

Freedom of consumers' choice may be offered to a greater or lesser extent through (1) increasing the general purchasing power of low-income families by giving them cash that they can spend as they please or (2) providing benefits in kind—such as housing and specific types of food—only to those who both qualify for help and *want* help.

Public vs. Private Housing Enterprise. Thus questions of policy impinge closely on questions of method. Those who favor public housing argue (1) that money intended for housing should be so used, (2) that if people are given free funds they may not spend them for better housing, and (3) private enterprise is not likely to accept sufficient controls to assure that any subsidies offered be used to provide housing for low-income families. Those who favor rent certificates carrying the right of the recipient to live

where he will, argue that private enterprise can provide the housing if given only reasonable opportunity for profit; if families need help, give them help in paying rent and let them live where they will. Thus both competition of the government with private industry and regimentation of consumers will be avoided.

Obviously, rent certificates unless tied to enforced standards of housing would result in freedom of consumers' choice. Families whose incomes are enhanced by rent certificates might live in the same dwellings in which they would live anyway and thus they might use the increased income in some other way. In the short run, rent certificates do not increase the housing inventory. The increased expenditures for rental housing may thereby go to landlords without any immediate improvement in the quality of the total housing inventory. Ultimately higher rental incomes may stimulate new building or the remodeling of existing structures.

Opponents of rent certificates stress the waste of public funds that may occur through misapplication of increased income to nonessential or even harmful uses. They consider that if money is granted to improve a certain situation it should be so used.

Those who have sponsored public enterprise in housing have not been able to meet fully the larger issue of providing a minimum level of living with respect to nutrition, medical care, education, or other needs. Though rentals have been limited to a portion of income and often are graded according to family needs, the families who have been taken into public housing projects frequently have had to pay as much rent as they did before. The government subsidy has greatly improved the quality of housing in which these tenants have lived but it has not

always helped the families to satisfy needs that may often have been more crucial than housing.

Implementing Farm Housing Policy

Improvements in farm housing can be accelerated by using various approaches. Fundamentally, the continuation of a prosperous agriculture and the reorientation of those farmers who are now unable to share in any general prosperity is a prerequisite to continued social progress. Education, as well as technical, cooperative, and financial facilities, and other elements are important.

The writer cannot presume to discuss some of these subjects except as a layman but financial facilities available to farmers are here treated in some detail to acquaint the general reader with the financial setting. Private and public financial facilities, including personal resources of farmers, credit facilities, and public subsidies should be studied carefully so that neither too much nor too little will be expected from changes in this institutional area. Although it is believed that the policies and practices of some lending agencies could be better adapted than at present to the credit needs of farmers who are seeking to improve their housing conditions, it does not follow that housing costs can be reduced as greatly by such changes as some advocates of improved rural housing seem to believe. Some of the suggested financial programs should not be undertaken until the threat of inflation has passed.

Self-Help. At the outset of this discussion let self-help be emphasized. The construction and modernization of rural housing is almost sure to be accomplished to a marked extent by farmers who use their own farm-produced materials, in areas where such materials are available,

and who do their own mechanical labor. To the extent that they have access to technical services and supervision provided by the Extension Service of the colleges and the Department of Agriculture or by their own farmers' cooperative associations, the better will be the quality and volume of this work. That good results can be achieved by farmers who use their own materials and labor has been well proved.¹⁰

Expansion of technical services would encourage self-help. The National Housing Commission bill of 1947 which failed to become law followed this idea rather closely. The Secretary of Agriculture would have been authorized "to furnish all persons, without charge or at such charges as the Secretary may determine, technical services, such as building plans, specifications, construction supervision and inspection and advice and information regarding rural dwellings and other farm buildings."¹¹ Such a program would permit farmers to do much of their own work but it would give them technical guidance and supervision. It was believed that much good might be accomplished at a minimum of public expense, that the stimulus of such a program would be helpful, and that the educational effect could be far-reaching. It would also be desirable to teach improved practices to carpenters, material dealers, and men in related trades who operate in rural areas.

Cooperative Supply and Construction Service. A housing policy to include all farmers would encourage the reduction of costs. Among the devices for reducing costs, the cooperatives merit consideration. A permanent nation-wide cooperative material-supply and construction service might prove to be useful. Such a cooperative building service can reduce the

¹⁰ Dean G. Carter, *Study of Rural Housing*. Ark. Agr. Expt. St. Bul. 364, June 1938.

¹¹ S-866, 80th Cong., 1st Session, Title X, Sec. 1005, March 10, 1947.

cost of furnishing both building supplies and mechanical building labor. One federated regional farmers' cooperative has actually built houses.¹² At the outset, to provide more adequate competition, and to achieve the economies of modern techniques such as modular and prefabricated construction and of integration and large-scale operation, cooperative undertakings might be given some technical guidance at public expense. Such help could be a phase of the technical services mentioned in the preceding section.

Financing Housing Improvements. The first question that occurs to the practical man when he considers the possibility of improving farm housing is, how can it be paid for? Mostly farmers themselves must pay for whatever is done. Some can pay now, some must borrow now and repay later, and some may need public assistance to make a start toward improving their conditions.

With respect to paying now, it is remembered that on January 1, 1947 farmers owned an estimated 20 billion dollars of bank deposits, currency, and United States savings bonds.¹³ Moreover, farm income continues near record levels. Although they are very unequally distributed among individual farmers, such income and resources are enough to pay for extensive purchases, including outlays for improvements and building of farm houses.

In addition to their own resources many farmers will need credit. Credit facilities for farmers are not specifically designed to provide loans for improving or building residences but financial agencies are authorized to make, and they do make, loans for such purposes.

A review of these credit facilities may reveal wherein some adaptations to the housing needs of farmers could be made. A few proposals for such adaptations are made below and follow a brief description of existing credit facilities.

(7) *Non-Real-Estate Loans.* Important for house improvement is household equipment which often is sold on contract, with seller's right of repossession if the buyer should default. Personal finance companies, operating through arrangements with the merchants who sell the equipment, frequently finance equipment loans in this way. If not sold under a conditional sales contract, the equipment may be encumbered with a chattel mortgage. Many commercial banks have opened personal loan departments to make such loans to consumers.

Loans not secured by real estate and used for repair, improvement, and modernization of rural dwellings may be obtained from merchants, rural banks, production credit associations, and others.¹⁴ Merchants such as lumber dealers, and mechanics such as plumbers, often arrange credit for their customers either on open account or on the basis of promissory notes. Except for mere accommodation credit, usually of short duration, merchant credit is likely to be comparatively expensive.

Many rural banks have for years extended non-real-estate credit to farmers without distinguishing between consumption and production uses and without differentiating their charges. Many such loans have been used for repair and improvement of dwellings. Production credit associations participate to a small extent in this type of business. They are organized as farmers' cooperatives

¹² For a review of the potentiality of such a service see Roy J. Burroughs, "Farmers Cooperative Construction Service," *Land Policy Review*, Winter 1945.

¹³ *The Balance Sheet of Agriculture, 1947*, U. S. Dept. of Agr., Misc. Pub. (in press)

¹⁴ For proportions of such loans made by different lenders in 1931, see Frank F. Hill, "Financing Home Building and Home Improvement on Farms and in Villages," Appendix 4, Committee on Farm and Village Housing, President's Conference on Home Building and Home Ownership, Wash., D. C., Dec. 1931.

under the general supervision of the Farm Credit Administration. Perhaps the largest volume of such business in rural areas is done by merchants on open account and by commercial banks on standard loan terms. To farmers unable to obtain credit on the usual commercial terms, production and subsistence loans of the Farmers Home Administration are sometimes available that, among other things, may be used for house improvement.

Loans for modernization and repair of some farmhouses may need to be larger and for longer terms than present lenders are willing or legally authorized to make. Approved lenders can handle such loans, however, with the protection of credit insurance available from the Federal Housing Administration under the provisions of Title I of the National Housing Act. Loans may be insured which are either secured or unsecured. For modernization and repair loans, the limit is \$2,500 and the maturity 3 years, 32 days. Under existing regulations, the maximum financing charge for such loans is \$5 discount per \$100, for each year of the term of the loan. If paid in monthly installments, the maximum interest rate calculated on the average outstanding balance is about 9.7 percent. The payments may be synchronized with the periods in which farmers expect to receive cash. As these rates are high, farmers with a good credit rating might do well to try to obtain lower interest rates than the maximum authorized under this Act. Non-real-estate loans also are guaranteed by the Veterans Administration, among other purposes, for housing repairs and improvements, in amounts up to \$2,000 at not to exceed 4 percent interest. This agency is discussed more fully in connection with mortgage loans.

¹⁵ Report of the Administrator of REA, 1945, p. 11.

Low-cost credit for financing electrical and plumbing installations and equipment is available to the members of cooperative rural electrification associations. The farm members may borrow from the cooperatives at 4-percent interest. The down payment, at present, is 20 percent of the retail installed price. Repayments may be made monthly, quarterly, or annually, over a 5-year term. Except under special conditions, the maximum amount of an individual loan is \$500. The promissory notes of the farmer-borrowers must be endorsed with full recourse by the retail dealers who sell the equipment. Equipment that can be financed includes farm and home electric wiring and fixtures, plumbing, and related appliances. Funds to make these loans to members are provided to the cooperatives at 2-percent interest by the Rural Electrification Administration of United States Department of Agriculture.¹⁵

(2) *Real Estate Mortgage Loans.* Farmers who have mortgage-free farms and good earning capacities usually have no trouble in obtaining mortgage credit to be used for building or improving their houses. But farmers who already have mortgages may have difficulty in getting enough additional loans to finance building. Although it is undesirable for farmers to assume larger fixed financial charges than their earnings can carry, nevertheless, if loan terms were properly adapted to the need, it is believed that more farmers could safely provide themselves with decent housing.

Second Mortgages. A second mortgage is not a preferred type of obligation for farmers to assume, but home improvement sometimes is important enough to justify it. In that event, the source of credit commonly is from an individual or merchant. Individuals lend money on a variety of terms but frequently the dura-

tion of loans made by individuals is too short to be suitable for larger mortgage loans. Heretofore, second mortgages were often obtained from the Federal Farm Mortgage Corporation, an agency of the Farm Credit Administration, but its right to make additional loans expired on June 30, 1947.

Private Sources for First Mortgages. First liens upon improved farm land may be made by banks, insurance companies, and others, and may be made or insured by federally-sponsored agencies. Some such loans are used for construction activity. In the case of unamortized loans, national banks are limited to those that do not exceed 50 percent of the appraised value of the real estate and are for no longer than 5 years. In the case of amortized uninsured mortgages, national banks may lend an amount not exceeding 60 percent of the appraised value, provided 40 percent or more of the principal is to be retired in 10 years or less.

Federal Housing Administration. National banks, other banks, insurance companies, and any approved institutional lenders offer various types of real estate first-mortgage loans insured by the Federal Housing Administration. Most of these loans, however, are on urban rather than farm property. Residential "Class 3" loans under Title I of the National Housing Act are insured mortgages with property standards that are suitable for farms. These loans may not exceed \$3,000, the proceeds of which must all be used for construction, and may not exceed 95 percent of the appraised value of the improved property. The maximum maturity is 20 years and 5 months. The rate of interest

may not exceed $4\frac{1}{2}$ percent. The mortgage insurance is $\frac{1}{2}$ percent per year on the *face amount* of the mortgage, a rate that, together with interest, brings the total cost to the borrower above $5\frac{1}{2}$ percent.

Veterans' Administration. The Veterans' Administration guarantees up to 50 percent of the amount of loans made under certain conditions to qualified veterans. The present limit on the guarantee for *non-real-estate* loans such as those for repair or improvement of houses is \$2,000. The limit for *real-estate* loans secured by farms or houses is \$4,000. The interest rate may not exceed 4 percent. Under this plan, lenders frequently have offered loans to veterans of as much as 90 to 100 percent of appraised value of medium-priced properties. Such lenders rely on the \$4,000 guarantee to cushion any possible decline in the value of the property. The Veterans' Administration also guarantees second liens up to 20 percent of purchase price in cases in which the underlying mortgage is made or guaranteed by a federal agency. Thus, if a veteran buys a \$5,000 house he may obtain \$4,000 with an 80-percent FHA insured mortgage and the other \$1,000, or 20 percent, may be insured by the Veterans' Administration.¹⁶

Farm Credit Administration. The federal land banks and the Federal Farm Mortgage Corporation, both sponsored by the Farm Credit Administration of the United States Department of Agriculture, are an economical but not altogether convenient source of mortgage credit for buildings and other structural improvements on farms. Long-term amortized loans are available from federal land banks at 4 percent interest up to 65 per-

¹⁶ The Veterans' Administration also will insure lenders against any losses up to 15 percent of the total volume of eligible loans to veterans. In the absence of enabling legislation, this provision has been little used by banks except for non-real-estate loans. Both forms of guarantee—the \$4,000 guarantee and the 15 percent of the business—in effect

usually provide 100 percent coverage of risk. The chances that actual losses will exceed \$4,000 on any mortgage or 15 percent of total business is slight. These guarantees by government agencies assure the veteran ready access to loan funds.

cent of the "appraised normal agricultural value" of a farm. Borrowers must buy stock in a local national farm loan association, a type of cooperative organization controlled by the membership. The stock investment equal to 5 percent of a loan usually may be recovered by the borrower upon repayment of the loan.

Before July 1, 1947, when further lending activities ended, the Land Bank Commissioner of the Farm Credit Administration made loans for the Federal Farm Mortgage Corporation at 5 percent interest in amounts not exceeding \$7,500 to any one farmer. A loan for housing might have been available from this source. The mortgages were either first or second liens, and total secured indebtedness was as much as 75 percent of the "appraised normal agricultural value" of a farm or of prudent investment if off-farm income were a reliable secondary source of livelihood. A farmer could sometimes borrow from both land banks and the commissioner and thus obtain larger loans than would have been available from a land bank only. These "commissioner loans," as they are called, have partly filled the need for credit facilities for families living on "part-time" farms whose principal income was from off-farm employment. An appraisal on the basis of "prudent investment value" considers the general market for the farm apart from its significance as a home for the farm operator. One gains the impression that in general such loans were made with caution.

Farmers Home Administration. The Farmers Home Administration of the United States Department of Agriculture succeeds the Farm Security Administration in administering the Bankhead-Jones tenant-purchase, farm-enlargement, and farm-improvement loans to farmers who have inadequate income or capital to obtain suitable credit from other sources.

Under certain conditions this Administration lends public money on mortgage security and insures mortgages made by private lenders. Qualified veterans, farm tenants, farm laborers, sharecroppers, and other individuals (including owners of inadequate or under-improved farm units) who obtain, or who recently obtained, the major portion of their income from farming operations and who otherwise are unable to obtain sufficient credit at not to exceed 5 percent interest in general are eligible. Veterans are given priority in the disposition of the \$15,000,000 appropriated for direct loans in the fiscal year 1948, although by administrative decision \$3,000,000 is reserved for supplementary loans to existing borrowers to complete programs already started. The insured loans are not so restricted. About \$100,000,000 of loans could be insured with the existing \$1,000,000 that was appropriated for a revolving fund. Loans must be on farms of such size and type as to constitute "efficient family-type farm-management units." Thus, loans have been limited to farms that, under average management, would provide sufficient return to cover operating expenses, family living costs, insurance, taxes, maintenance, and debt service. Part-time farming except for disabled veterans receiving pensions is not encouraged under this program.

Within the limits of appropriated funds and authorized volume of insurance the way is open through the Farmers Home Administration for tenants to become owner-operators and for farm operators who have farms that are too small or are under-improved to remedy their position. Funds for building or improving farmhouses are often included with the loans. Long-term amortized loans (not to exceed 40 years' maturity) which cost the borrower $3\frac{1}{2}$ percent for

interest, or interest and mortgage insurance, are offered. The direct loans may cover the entire amount needed. The insured loans are limited to 90 percent of the "reasonable value of the farm and repairs and improvements thereon." The farm being financed is not to have a value as improved in excess of the "average value of efficient family-type farm-management units" of the county in which it is located. That is, farms on which such loans are placed must be valued at or below the median value of such farms of the county. The loans must be refinanced by private or co-operative lenders without benefit of the mortgage insurance available under the Act, whenever somewhat comparable terms are available at not to exceed 5 percent interest. If otherwise acceptable, the direct loans will have been amortized sufficiently to become eligible for refinancing by the federal land banks within about 20 years, and the insured mortgages will have become eligible after approximately 17 years.

Relative Standing of Lenders. The relative importance of the various sources of mortgage credit for farms may be noted from the accompanying table. It is believed that a relatively small portion of this credit was used for home modernization, repairs, or construction.

Interest Rates. Data are not available to show completely the current rates charged by various lenders. However, in 1940, the average rate applicable to outstanding farm loans by banks was 5.5 percent; by individuals, 5.2 percent; by life insurance companies, 4.9 percent; and by federal land banks and the Land Bank Commissioner, 3.7 percent. The estimated average rate for life insurance companies in 1944 was 4.6 percent. In general, loan rates now charged by various lenders are lower than were loan rates in 1940. The over-all average rate

on outstanding farm-mortgage debt to all mortgage lenders in the United States on January 1, 1940 was 4.6 percent.¹⁷

PERCENTAGE DISTRIBUTION OF THE FARM-MORTGAGE DEBT BY LENDERS, JANUARY 1, 1946-7.

	Percent	
	1947	1946
Federal Land Banks.....	20.5	23.1
Federal Farm Mortgage Corp. . .	3.1	5.1
Farmers Home Administration(a) .	4.0	3.9
Joint-stock Land Banks.....	(b)	0.1
Life Insurance Companies.....	18.6	18.9
Insured Commercial Banks.....	14.3	10.8
Others.....	39.5	38.1
TOTAL.....	100.0	100.0

(a) Successor to Farm Security Administration.

(b) Only 0.03 percent.

Source: Unpublished data bringing forward *Distribution by Lender Groups of Farm-Mortgage and Real Estate Holdings, January 1, 1930-45*, by Harold C. Larsen, Bur. of Agr. Econ., August 1946, p. 8.

(3) *Local Housing Authorities.* Loans, grants, and annual contributions have been made to a limited extent to local housing authorities in rural areas under the terms of the United States Housing Act of 1937 as amended. Nevertheless, the principal emphasis of this program has been in urban areas. The local authorities are corporate bodies of the state in which they are located. The Public Housing Administration (successor to the United States Housing Authority) was authorized by the Act to make loans to local housing authorities in amounts sufficient to cover 90 percent of the development cost of rental housing built by the local authorities. The other 10 percent must be provided locally. The loans must bear interest at not less than one-half of one percent above the going rate for federal bonds of 10 or more years' term. The loans may not be for longer than 60

¹⁷ H. D. Umstott, and S. L. Yarnall, *Revised Annual Estimates of Interest Charges and Interest Rates on Farm-Mortgage Debt*, Bur. of Agr. Econ., October 1944. (Processed)

years. A substantial portion of capital funds is obtained directly by local housing authorities through the municipal bond market. Recently, Congress has provided only limited funds for public housing activities so that, under existing circumstances, this type of program will not play a very important role.

Subsidies. To make possible the provision of rental dwellings to low-income families at rentals they can afford, which are below the cost of providing shelter, a system of initial grants, or alternatively, of annual contributions, is provided. As the annual contributions are the more generous, this type of subsidy is almost universally accepted by local authorities. The amount of the contributions to be made may be reconsidered by the Public Housing Administration from time to time in the light of the continued need. The upper limit of any annual contribution is a percentage of development cost equivalent to 1 percent above the long-term federal bond rate. If the resulting yield were $3\frac{1}{2}$ percent and the cost of a rural house \$3,000, the annual contribution would be \$105.

The present work of the maximum contributions for which the federal government, under extreme conditions, could become liable under this program (discounted at the federal bond rate) might cover the entire development cost. Actual contributions in 1944, for example, were only 61 percent of contractual obligations, and contractual contributions are not necessarily as much as the law allows.¹⁸

All grants and contributions are contingent on local contributions in an amount equal to at least 20 percent of federal contributions. Usually the local contributions take the form of partial tax exemptions granted by state and local

governments to the local housing authorities.

Application of the Public Program. The rural public housing program was just getting started when the war stopped it. Only 515 houses in 5 states were built.¹⁹ The details are unique to rural areas. As described by the FPHA:

"When a farm owner wanted a better house for himself or his tenant, he applied to the local housing authority. Whether owners or tenants, families were eligible only if they lived in substandard houses and were unable to afford anything better. A family was eligible if its income did not exceed five times the rent to be charged, including utilities, unless there were three or more minor dependents, in which case income could not exceed six times the rent.

"To get a new house, the farm owner agreed (1) to give the housing authority title to one acre of his farm as a site for the house, and (2) to tear down or convert to some other use the existing substandard house. In addition, the occupant agreed to do all except major repair work necessary to keep the new house in good condition.

"An application was approved only after a representative of the Farm Security Administration appraised the farm and reported that it would provide a decent standard of living and enough income to meet the low-rent payments.

"All the houses are built by local private contractors. They are planned, owned and managed by the local rural housing authority."²⁰

The question arises as to whether this program would be adequate for part-time farmers and farm laborers. Moreover, a device that legally separates farm from home may prove to be unnecessarily complicated.

Modified Credit Facilities Suggested

Several possible modifications in existing credit facilities for improving rural

¹⁸ Testimony of Philip M. Kluznick, Hearings Before the Committee on Banking and Currency, United States Senate, on S-1592, Part I, p. 222.

¹⁹ *The Work of Public Housing*, Fed. Pub. Housing Authority, March 1946, p. 38.

²⁰ *Homes for Farm Families*, Fed. Pub. Housing Authority, Undated. (Processed)

housing may be worth consideration. In the first place, a suitable credit mechanism might allow the postponement of the curtailment of debt on the loans for financing of land until the loans for the construction or improvement of housing were repaid. Existing federal and state laws might be modified to encourage such a practice. Private lenders and publicly-sponsored agencies might be authorized to follow such a plan when circumstances warrant the arrangement.

Perhaps of greater merit would be a flexible mortgage that could be easily increased when borrowers need to make structural improvements to farm properties. Various lenders, and certainly the federal land banks, sometimes do increase existing loans to permit borrowers to finance building. This is preferable to the creation of a second lien. However, a new search of title, a new appraisal, and a revised mortgage are required, all of which are time-consuming and expensive.

If the Federal Farm Loan Act, possibly the Farmers Home Administration Act of 1946, and perhaps some state statutes, were modified to permit the use of open-end mortgages, such time-consuming and expensive items could be eliminated. Open-end mortgages would permit holders of first liens to make further advances of funds to borrowers on the security of the existing lien. A similar principle is frequently used in the case of corporate bond indentures. Federal land banks, the Federal Farm Mortgage Corporation, the Farmers Home Administration, and private lenders might be able to serve farmers more effectively if this practice were adopted.

Such a flexible mortgage instrument would be economical for both borrower and lender. It would tend to encourage farm improvements that constitute increased security for the lender. The

main disadvantage would be that the borrower would then become dependent on the principal lender. Junior liens would be difficult to obtain from other lenders whose position might be threatened at any time by an increase in the amount of the underlying lien. But this disadvantage would seem to be more than offset by the possible advantages.

Families whose principal source of income is from off-farm work, but who nevertheless live on rural acreages that can or do produce fruit, truck crops, and other agricultural products, often lack suitable credit facilities. In such cases the farmhouses should be appraised on the basis of the general market for them apart from and in addition to their specific significance to the farm operators. In practice, the land for agricultural purposes has remained the primary basis for appraisals by most lenders. In the case of the federal land banks, while consideration of nonagricultural income is not entirely precluded, in actual practice agricultural income is the principal factor in appraisals. The Farmers Home Administration does not ordinarily make allowance in its appraisals of income for any nonagricultural income received by or possibly available to borrowers. However, veterans with pensionable disabilities are eligible for loans from the latter agency if their prospective income from both pensions and farming will afford them sufficient income to pay living and operating expenses and to maintain their loans.

In some areas, commercial banks, building and loan associations, and at least one large insurance company serve the credit needs of part-time farmers for the purpose of building or improving dwellings. Before their discontinuance on July 1, 1947, the "commissioner loans" of the Federal Farm Mortgage Corporation served this need in part,

having been authorized to base appraisals under certain conditions on:

"... a prudent investment, consistent with community standards and rentals, if (1) the person occupying the property is not entirely dependent upon farm income for his livelihood but receives a part of his income from other dependable sources and (2) the farm income from the property, together with earnings from other dependable sources ordinarily available in the community to a person operating such property would be sufficient to support his family, to pay operating expenses and fixed charges, and to discharge the interest and amortization payments on the loan."²¹

A possible aid to areas that lack suitable credit facilities for part-time farmers would be to permit the Farmers Home Administration to guarantee mortgages on part-time farms including existing or proposed structures, provided the agricultural land produces or is capable of producing \$500 of produce per year valued at average long-term prices, and provided no other lender will offer comparable terms at not to exceed 5 percent interest. The loans insured by the Farmers Home Administration would retain the usual clause whereby borrowers must accept loans without insurance from this agency at any time a prospective lender offers comparable terms at not to exceed 5 percent interest.

Also the Federal Housing Administration might be specifically instructed by Congress to plan its operations to cover actively the gap between mortgages on houses eligible for insurance by the Farmers Home Administration and mortgages on houses most commonly insured by the Federal Housing Administration. The suburban home program of the Federal Housing Administration could be sufficiently liberalized so that all classes of reasonable risk could be covered. It would be necessary to broaden the

present token program in this field of risk coverage.

The question of encouraging landlords to provide decent housing for farm tenants is always difficult. Would it not be possible for tenants to provide housing for themselves? Some of the difficulty in financing rural tenant housing stems from the tradition common to most farm communities that each family should own the farm it operates. Some countries, England for example, have found that the secure use of land can be arranged through suitable leases as well as through the esteemed fee simple. If a farmer puts his savings into added livestock and equipment, he may acquire a substantial sum on which he can live in his old age without trying to take outright title to land. If he has a long-term lease with suitable clauses for protection of all parties at interest²² he can live on the same farm all his life and feel free to operate in the long-range interests of the community, his landlord, and himself. It should be possible to lease land for a sufficiently long term so that a tenant could be secure if he were to build a new house on rented land. Then his standard of living could rise. He could put any available savings into machinery and livestock rather than land although he could rent as much land as he could operate effectively.

The Federal Farm Loan Act and the Farmers Home administration Act might be modified in such a way as to encourage the financing of mortgages on long-term leaseholds. Long-term leases could be popularized but slowly. Existing laws do not forbid such leases, but they do not encourage them. The long-term lease in effect is a first lien, but rental payments would be comparatively small in relation to value of the land. The phraseology of

²¹ 12 U. S. C., Sec. 1016 (b).

²² See M. D. Harris, M. M. Tharp, and H. A. Turner. *Better Farm Leases*, U. S. Dept. of Agr. Farmers' Bul. 1969.

the National Housing Act (Section 201) in this regard would seem to be satisfactory. In that Act the term "mortgage" means not only a first mortgage on real estate held in fee simple but it also includes an encumbrance on "a leasehold (1) under a lease for not less than ninety-nine years which is renewable, or (2) under a lease having a period of not less than fifty years to run from the date the mortgage was executed . . ." This suggestion may merit consideration among the various ways in which improved rural housing for tenants may be encouraged. It would not serve a short-term lessor. Because of the lack of incentives to either landlord or tenant it would seem impossible to devise a financial mechanism that would do much to improve the housing facilities of short-term farm lessors. The most effective approach may be nonfinancial. Through education, farm laborers and tenants may come to want better housing so much that they will try to hold out for it.

Remedial Credit Aids for Low-Income Groups

If rural America is to be adequately rehoused within a limited number of generations, financial facilities cannot be limited entirely to self-supporting loan programs. Loans at less than cost to low-income farmers for housing improvement should be combined with guidance and other programs to make further aid unnecessary. That is to say, such programs should be remedial in character. Similarly, when young and able farmers without the necessary inheritance or savings to start farming at an efficient level are given loans below cost, including funds for improved housing, the loans, if possible, should be self-liquidating and in any case not likely to be repetitive.

Farm-improvement and farm-enlargement loans of the Farmers Home Administration that are made if funds

are available are of this character. Loans for housing improvement are included in this program. Interest rates are $3\frac{1}{2}$ percent to the borrower for long terms. They often involve technical guidance by specialists of the lending agency. Under recent legislation, whenever the borrower can obtain private or cooperative credit, he must do so. Such government credit has prospects of being limited in duration and is remedial in form.

The National Housing Commission Act of 1947 that failed of passage went even farther than to propose extension of credit below cost. The bill contained provisions for 4-percent, 33-year, partly-subsidized loans for housing, in certain cases of need for "potentially adequate" farms. It was proposed that, if within 10 years the income of the borrower could be increased sufficiently to carry the loan thereafter, as much as half of interest and principal installments coming due within the 10 years could be waived. The intent was to combine loans with outright subsidies during the period required for the borrower to enlarge and reorganize his farm in order for it to become self supporting.

Grants

In the case of the lowest income families temporary grants rather than loans may be needed. This was recognized in the proposed National Housing Commission Act of 1947 which failed of passage. Farm laborers would often require such help. The presumption is against building permanent new houses or making major improvements at public expense for families who can not ultimately be made self-sustaining in the existing location. Families whose chief earner suffers a permanent disability, especially if a veteran is involved, are an exception to the general case. Grants to repair roofs, add screens, install sani-

tary water supplies or privies, and reduce the access of rodents, remedy conditions immediately without committing the government to a long-term investment. When a long-term investment is made it should be in connection with farms that are of proper size and organization, or sufficiently accessible to off-farm employment to provide families with adequate incomes.

In certain instances, families require aid during a long period of years owing to death or illness of a breadwinner. Some such families may properly live on subsistence farms. Possibly, new housing at public expense might be warranted under some circumstances. But unless the farms are of economic size or the house is accessible to off-farm areas of work, new farmhouses should be exceptions. Alternative arrangements for caring for such families should be carefully reviewed before decisions are made.

*Administration of Housing Policy*²³

Reorganization Plan number 3 of 1947, prepared by the President in accordance with Reorganization Act of 1945, established the Housing and Home Finance Agency as the successor to the temporary National Housing Agency of the war period. Within this supervisory and coordinating agency now functioning, are three constituents that continue functions similar to those formerly performed by the three constituents of the National Housing Agency: The Home Loan Bank Board, the Federal Housing Administration, and the Public Housing Administration. Within the Housing and Home Finance Agency there is also a National Housing Council composed of the "Housing and Home Finance Administrator as Chairman, the Federal Housing Commissioner, the Public Housing

Commissioner, the Chairman of the Home Loan Bank Board, the Administrator of Veterans' Affairs or his designee, the Chairman of the Board of Directors of the Reconstruction Finance Corporation or his designee, and the Secretary of Agriculture or his designee. The National Housing Council shall serve as a medium for promoting, to the fullest extent practicable within revenues, the most effective use of the housing functions and activities administered within the Housing and Home Finance Agency and the other departments and agencies represented on said Council in the furtherance of the housing policies and objectives established by law, for facilitating consistency between such housing functions and activities and the general economic and fiscal policies of the Government, and for avoiding duplication or overlapping of such housing functions and activities."²⁴ The Department of Agriculture thus shares the responsibility for administering housing programs.

Under present circumstances a rural housing program of the federal government is virtually nonexistent. The Public Housing Administration is still authorized to operate through local housing authorities in making loans and grants. There are no resources for this program, however. The Farmers Home Administration of the Department of Agriculture continues to operate within limited means in such a way as to improve the housing conditions of certain farm families. The federal land banks and production credit associations sponsored by the Farm Credit Administration provide credit for favorable risks. The Extension Service continues to conduct educational activities among farmers to acquaint them, among other things, with ways and means of improving farm-

²³ See also Miles L. Colean and Housing Committee of Twentieth Century Fund, *American Housing*, (New York 1944) pp. 282-5; 336-9.

²⁴ Reorganization Plan No. 3 of 1947, U. S. 80th Cong. 1st Session, House Doc. No. 270, Sec. 6, pp. 6-7.

houses. The Department continues a limited amount of technical and economic research in this field. But in general, the Department of Agriculture because of lack of funds is not in a position to direct an active program for the improvement of farm housing.

The National Housing Commission Bill which failed of passage in the 1st session of the 80th Congress would have provided, if it had been enacted, a program of loans, grants, technical services, and research which could have been helpful to virtually all income groups of farmers. The administration of the proposed program would have been with the Secretary of Agriculture; local public agencies could have administered certain phases of the program and committees of farmers might also have helped in local administration.

If consideration should again be given to a rural housing program, study might well be directed toward concentrating responsibility for administration with respect to farm housing in the Secretary of Agriculture. The Secretary through the Farmers Home Administration already operates a nationwide organization. This administration knows how to improve farm housing conditions economically from long experience with its loan clients and has effective contacts with local communities through its local committees of farmers. Research and educational activities of the Department would not be covered by this suggestion.

The demarcation between the responsibility of the rural and the urban housing agencies is not easy to draw. The Department of Agriculture must take responsibility for "farms." The National Housing Commission Bill defined a farm as "a parcel or parcels of land operated as a single unit which is used for the production of one or more agricultural

commodities and which customarily produces such commodities for sale and for home use of a gross annual value of not less than \$400".²⁵ Such a definition might allow a particular parcel of land to be defined as a farm in one year and not a farm in the next, depending on the amount of income, although the word "customarily" provides an escape clause. Further studies might reveal a more flexible administrative device to avoid the influence of sudden changes in the prices of farm products on the number of farms covered by the definition. If a farm were defined in terms of its actual or possible productivity in terms of average long-term prices, there might be some advantage. In either case the administrative problem is considerable. The \$400 limit is not so low as the current Census definition of a farm which would recognize an agricultural income as low as \$250 (for places with less than three acres) but it is so low that in times of high prices like these even more places would be included as farms than were included in the 1940 census.

The specialized knowledge and judgment of representatives of various bureaus and agencies of the Department of Agriculture might be made available more frequently to its representative on the National Housing Council. A two-way exchange between this representative and such specialists would contribute to the interest and successful operation of all. Research people in particular would see the relation of their work to national problems. The representative on the Council would have a fund of experience from which he could be advised. Such a two-way exchange could be provided by what might be called a Housing Coordinating Committee of the Department of Agriculture.

²⁵ S-866, 80th Cong., 1st Session Title X, Sec. 1001 (b).

Rural Housing Policy of United Nations

The United States of America may not altogether meet the rural housing standards that seem to be reasonable in the light of the education and productivity of the average farm family, at least as found in most of the farming areas. It is true that, in comparison with the rest of the world, the average housing that our farm families have, even now, will probably seem fairly good. But the conscience of the world as represented in the Economic and Social Council of the United Nations is gradually coming to consider housing problems. In the world picture, rural housing will

undoubtedly be of great importance because most people on the globe live in rural or small village environments. As a participant of the United Nations, the United States seems called upon to develop a well-considered housing policy and to institute efficient instruments for maintaining or improving the policy and for achieving its objectives. Either democracy will lead the way toward social betterment or this leadership will come from other sources. Rural housing is important to a large portion of the population of the earth. Will the American farmers and their government lead the way?

I. The Property Tax in Canada and the United States†

By HAROLD M. GROVES*

I. Base of the Tax

SHOULD the property tax base cover all categories of property? Or only all real estate? Or only all land?

In spite of increasing pressure for revenue the trend in the United States has been toward a narrower property tax base. In 1942, two states taxed real estate only; nine others taxed real estate and tangible property (with some exemptions for specific categories of tangibles); some seventeen others included intangibles in the property tax base but applied a special rate to them; and thirteen taxed all classes of property (though not necessarily all categories nor all property) neutrally across the board.¹ At one time the taxation of all categories of property was the rule rather than the exception. Where will and should this trend stop?

Some light on the answer, perhaps, can be found in examining the experience of Canada where the trend away from the broad general property tax has been much more pronounced than in the United States.

Taxation of Personal Property

Of the nine Canadian Provinces only Nova Scotia makes even a nominal attempt to tax intangible property and only the three Maritime Provinces give personal property of any sort a substantial place in the tax base. The important industrial province of Ontario has

not taxed personal property since 1905. Manitoba for many years has confined personal property assessment to business inventories and equipment and has allowed its municipalities to apply a business tax in lieu of even this. Winnipeg substituted a business tax as early as 1893. Total assessment of personal property in Manitoba in 1945 amounted to only about 2 percent of the real estate assessment; the similar figure in Wisconsin is nearly 20 percent.²

Some evidence concerning the reasons for the abandonment of personal property tax in Ontario is available. "The machinery provided to enforce correct returns was quite ineffective." The single-tax movement, then gaining strength in Canada, was opposed to personal property taxation. The business tax of Montreal was thought to be more favorable to industry and business. "Grave and general dissatisfaction existed with the personal property tax as levied . . ."³

While, in general, the Canadians have regarded the personal property tax as antiquated, at least one provincial commission, reporting during a depression period, must be recorded as an exception. This was a Saskatchewan commission which, in 1936, expressed itself as follows:

"The Commission recommends that tangible personal property be assessed for taxation at full, fair, actual, value . . . The Commission considers that the administrative problems incidental to assessment and collection of personal property taxes are not insuperable,

† This is the first of a series of two articles which are based largely on documents and other information gathered by the author during a recent trip across Canada.

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¹ This classification (by the author) is necessarily arbitrary; the pattern of state property taxation is greatly confused by numerous exemptions, registration taxes and special net income taxes. Seven states whose status was particularly mixed were excluded from the summary. Tax Re-

search Foundation, *Tax Systems of the World* (Chicago: 1942), pp. 158-159; 166-168.

² *Statistical Information Respecting Municipalities of the Province of Manitoba, 1945* (Winnipeg: 1946), p. 13; *Report of the Wisconsin Department of Taxation, 1946*, p. 19.

³ James C. Forman, "Business Assessments as a Substitute for Personal Property Tax," *State and Local Taxation*, Proceedings of the National Tax Association, 1908, pp. 273-283.

and the adoption of such a tax will broaden the basis, and widen the circle of taxpayers in each community."⁴

It is worth noting that in the Prairie Provinces, while rural improvements may be less significant relatively (and perhaps bear a somewhat more constant relation to land values as among taxpayers) than elsewhere, farm machinery is a very important form of wealth and no doubt varies substantially in relation to land value from farm to farm. In 1926 land in Saskatchewan was estimated to constitute only about 60 percent of the total value of farm property, while in 1928 actually over 98 percent of the total assessment of all rural municipalities (which included some business and other non-agricultural property) was based on land.⁵

The Canadian aversion to the personal property tax may be due in part to British influence—British rates have ignored personal property for many years. It also may be due in part to failure to develop strong state support for local property tax administration. The recent "rental" of provincial income taxes to the Dominion affects the situation in two ways: (1) it leaves less in the domain of provincial and local tax discretion; and (2) it deprives the local governments of an important aid to personal property tax administration. (Income tax returns are a source of information regarding personal property.)

Business Taxes "in Lieu"

Although the Canadian retreat from the personal property tax may be thought to differ from our own only in degree, it has been marked by one feature quite foreign to experience in the States. This is the "in lieu" business tax found in a

variety of forms in all Provinces except Prince Edward Island and British Columbia (and authorized in the latter Province in 1947).

With some exceptions these business taxes have the following characteristics:

1. They are in lieu of the personal property tax.
2. Assessments are entered on the general property tax rolls and are subject to general property tax rates.
3. Generally, they provide a substantial (but not major) source of revenue, comparable to personal property tax receipts.
4. They are levied on occupants rather than on owners.
5. They apply (except in Halifax) to business only, and not to residential occupants.
6. They are in addition to real estate taxes and not a substitute for any part of them.
7. They are predominantly classified and sometimes graduated.
8. They are levied on a variety of bases—rental value, assessed value of premises, floor space, and turnover.

Describing a few of these taxes in more detail, we note that the Winnipeg measure is a classified and graduated tax based on rental value. (In this case the tax is a direct levy rather than an addition to the general property tax roll.) For example, retailers are taxed at from 6½ to 14½ percent of rental value depending on volume. All stores with the same proprietorship or management are counted as one for the graduation. Wholesalers and manufacturers each take a rate of 10 percent flat; dentists, physicians, and lawyers pay at from 7½ to 10 percent; insurance companies at 18½ and banks at 20 percent. The fact that the tax is fairly modest makes for minimum of criticism. Nevertheless, there are complaints (especially, as one would expect, from financial institutions); they argue that the classification is arbitrary and that a flat rate should be substituted

⁴ *Report of the Commission of Inquiry into Provincial and Municipal Taxation to the Government of the Province of Saskatchewan*, Neil Jacoby, Chairman (Regina: 1936), p. 179.

⁵ W. A. Mackintosh, *Economic Problems of the Prairie Provinces* (Toronto: Macmillan Co., 1935), Part 2, p. 110.

and applied uniformly throughout all the cities of the Province.⁶

Ontario business tax legislation is mandatory and general for all municipalities in the province.⁷ It consists of a classified occupancy tax with the several types of business rated at a specified proportion of the assessed value of their premises. The classification spreads over 15 classes, rated at from 10 to 150 percent of assessed value of premises. Thus retailers in general are rated at from 25 to 35 percent depending on the population of the district, (a special rate applies to chains); lawyers at 50; manufacturers at 60; wholesalers and banks at 75; and distillers at 150 percent. Originally, the ratings were supposed to bear some relationship to the personal property tax replaced but as one looks over the scale other objectives become evident, at least in the case of distillers. Where several tenants occupy the same premises (as in the case of a half dozen lawyers occupying the offices on one floor of a twenty-story building) the tax is prorated, no doubt largely on the basis of relative rent paid. One hears criticism of the Ontario business tax on the score that its classification is arbitrary. Comparing the two business taxes outlined above one is entitled to ask, for instance: Why should a wholesaler pay more than a retailer in Toronto and (frequently) less in Winnipeg? Why should a manufacturer pay less than a wholesaler and more than a retailer in Toronto; the same as a wholesaler and less than a (large) retailer in Winnipeg?

The tax in Regina and many other cities in Saskatchewan and Alberta is

based on floor space. This of course is much like assessing land by the acre. Some attempt is made to introduce rationality by classification (for instance, a higher rate per square foot is applied to banks than to retailers) but the resulting base can hardly be commended for its refinement.

St. John, New Brunswick, has recently introduced a refinement in applying its business tax to merchants. Instead of a personal property assessment, a percentage of business turnover is placed upon the tax roll. Thus a retail grocer is rated at 10 percent of his turnover, a fruit merchant at 12½ percent and a druggist at still a different figure.⁸ The rationale of the classification is not apparent but the idea of rating a merchant upon what flows through his business during the year seems quite as plausible as rating him according to what he has on hand at any given time. Two unique features are found in the local tax system of Halifax, Nova Scotia: (1) the occupancy tax is applied to residential property (rated at ten percent of assessed value) as well as to business (rated at 30 percent); and (2) distinct rates are applied to different elements of the base. Thus, on dwelling houses up to \$5,000 in value the rate is pegged at 35 mills, and the remainder of the base, including the occupancy tax on business premises, is the flexible element in the tax system.⁹

Exemption and Derating of Improvements

Canadian aberrations from the general property tax are not confined to substitutions for the levy on personal property. For many years the provinces of western Canada were widely known as laboratories for the so-called "single tax" and

⁶ However, a study of the city's revenues in 1939 (H. Carl Goldenberg, Chairman) indorsed the existing system and it was later recommended for application in British Columbia, which has amended its statutes accordingly. *Report of the Royal Commission on Municipal Finances and Administration of the City of Winnipeg*, (Winnipeg: 1939); *Provincial and Municipal Relations in British Columbia* (Victoria: 1947); *Municipal Act, Amendment Act*, 1947, sec. 36.

⁷ Ontario Revised Statutes, 1937, chap. 272, sec. 8, *Statutes of Ontario*, 1946, chap. 3.

⁸ *New Brunswick Statutes*, 1946, chap. 116.

⁹ Letter from J. F. McManus, City Assessor of Halifax, August 27, 1947.

while there has been a trend toward a wider base (inclusion of improvements) for several decades, the statutes still strongly favor improvements.

In the three Prairie Provinces, rural improvements are exempt entirely; that is, the property tax is confined to land. Urban improvements are uniformly de-rated one third in Manitoba; they are assessed at anywhere from zero to 60 percent in Saskatchewan and from zero to 100 percent in Alberta, depending on local option. Moose Jaw assesses at the Saskatchewan maximum, 60 percent; Regina at 30; Edmonton, Alberta, at 50 (residential) and 60 (business). British Columbia extends its option to both rural and urban improvements and sets a maximum of 75 percent (land 100 percent); two cities and one rural district exempt improvements completely; thirteen cities and one rural district assess them at less than 50 percent. Alberta alone has a provincial increment tax (on the increase in land values between sales).

The exemption of improvements reached its height during the land boom that ended in 1913. The boom was due largely, no doubt, to one of the greatest movements of population in history. Like all booms it generated its own steam and developed a fantastic overestimation of the future. In 1914 Edmonton listed land values of over \$191,000,000; its current assessment of land, after years of urban development, is only around \$25,000,000.¹⁰ In 1913, Regina assessed land at \$82,000,000 and currently assesses it at \$31,000,000, a figure which has remained quite stable for ten years.¹¹

The boom not only made all taxation seem burdenless; it enabled a transition

to land taxation to be accomplished "in almost every instance by an actual decrease in the rate of taxation."¹² Professor Haig before 1915 found the trend toward land taxation very popular, especially among real estate dealers! The collapse in the boom brought a heavy crop of municipal "tax arrears," land forfeitures for taxes, debt defaults, fiscal shortages and a sharp demand for a broader tax base. Western Canada has been retreating from the "single tax" ever since, but the retreat has been gradual and apparently reluctant.

Generally speaking, the critics have been extremely hostile to the land-value-taxation development in western Canada. In an excellent study for the Saskatchewan government in 1917, Professor Haig found that land values had fallen very sharply; that there was an alarming increase in tax arrearage; that land taxation had been pushed beyond the limits of its fiscal capacity; that improvements *next to land* are the municipalities' best tax base. Discreetly confining himself mainly to criticisms on fiscal grounds, Haig nevertheless raised the question whether it is equitable to exempt improvements in view of the fact that the latter are beneficiaries of governmental services.¹³

Nearly all recent reports on taxation in Western Canada have followed this lead. One critic goes much further (and much too far in the author's opinion) to say that "there is no theoretical and little practical basis for the present system of exempting buildings and improvements on agricultural land."¹⁴ A recent study in British Columbia clearly defines the radical differences in the incidence of the property tax as applied to land and im-

¹⁰ Robert Murray Haig, *The Exemption of Improvements from Taxation in Canada and the United States* (New York: 1915,) p. 92; *Annual Report of the Department of Municipal Affairs* (Alberta: 1945, Edmonton: 1946), p. 10.

¹¹ Haig, *op. cit.*, p. 43; City of Regina, *Financial Statement* (1946), p. 37.

¹² Haig, *op. cit.*, p. 266.

¹³ Robert Murray Haig, *Taxation in the Urban Municipalities of Saskatchewan* (Regina: 1917).

¹⁴ W. A. Mackintosh, *Economic Problems of the Prairie Provinces* (Toronto: Macmillan Co., 1935), Part 2, p. 142.

provements, though leaving the reader to draw his own conclusions as to policy.¹⁵

The alleged fiscal inadequacy of the land tax as the sole source of municipal revenue is a matter of confiscatory rates and fluctuation in revenue.¹⁶ Now that western land booms are largely past history, instability headaches need be of less concern. Present tax rates in western Canadian cities typically range from four to six percent which is a high full-value charge and might be judged by some as "confiscatory." Such rates will probably result in a considerable forfeiture of private unimproved lots during a depression period; this will affect current cash revenues adversely but may not otherwise be objectionable from the public's point of view. Municipalities complain considerably of inadequate support for their services. Of course these units of government can turn to the province for help but enlarging the provincial tax system, based largely on sales taxes, may not be any better than more local taxes on improvements. In Australia, where the cost of education is borne by the states, the single tax seed has found its most congenial soil. But the Australians have not escaped their full share of regressive and otherwise undesirable taxes at state and federal levels. Here we confront the tax truth that we are seldom able to confine taxation to best or even good levies. As in the case of agriculture we consume too much "to farm only the soil that's fit for farming."

One of the problems of special land-value taxation is to define an improve-

ment. Here the Canadian experience has introduced little by way of refinement and the matter has received far less discussion than in Australia. In the Prairie Provinces the term "improvement" is usually synonymous with "building" and indeed the latter word sometimes appears in the statutes. British Columbia includes as improvements "clearing, dyking, drainage, planting or cultivating the soil."¹⁷ Municipalities can exempt fruit trees at their discretion.¹⁸ Utility improvements such as track and poll lines are defined as land for municipal taxation; as improvements for school levies.¹⁹

The experience of Canada with land-value taxation differs in many respects from that of Australia. The Australian system includes both federal and state taxes whereas the tax in Canada is very largely local. The Australian federal and state taxes are personal and graduated as a rule and they are designed to discourage large holdings. This has no counterpart in the Canadian practice which might be described as "exclusively for revenue." At the local level the two systems are much alike especially in the extension to municipalities of "local option." As previously mentioned, the Australian municipalities have an advantage in that one of the main functions of government, namely education, is supported mainly by the Australian states. The Australian system, much more than the Canadian, has attempted to develop a refined definition of improvements, including therein, in accordance with Ricardian theory, everything that gives land value other than its natural powers and position. The at-

¹⁵ Maxwell A. Cameron, *Report of the Commission of Inquiry into Educational Finance* (Victoria, B. C.: 1945), chap. V.

¹⁶ According to strict theory, no land tax on capital value, supported by current income, can ever be confiscatory. The tax decreases income, and this decreases the value of the property, which in turn checks the impact of the tax. Forfeiture may be due to valuations supported by future prospects making present levies so burdensome that owners will no longer carry them. For a discussion of the tax theory here involved see Jens P. Jensen, *Property Taxation in the United States* (Chicago University Press, 1931), chap. III.

¹⁷ Province of British Columbia, *Municipal Act* (Victoria: 1945), sec. 2.

¹⁸ *Ibid.*, sec. 228.

¹⁹ H. Carl Goldenberg, *Provincial-Municipal Relations in British Columbia* (Victoria: 1947), p. 75. The distinction, except for steam railways, has ceased to be important since utilities are now required to pay an "in lieu" tax on gross income (*Act to Amend the "Municipal Act,"* 1947, sec. 31.).

tempt, however, has resulted in litigation and many complications for administrators. Strong sentiment has developed for the simpler rules usually applied in Canada, where improvements are defined to include only structural additions to land.²⁰

Further Classifications of Property

Although classification of property beyond that described above is not very extensively used in Canada there are few if any restraining constitutional impediments. Provinces have no "uniformity clauses" to override as is the case with most American states.

One noteworthy case of classification is found in Ontario. Some years ago the Ontario legislature gave municipalities the option of derating low-value dwellings. A scale was included in the statute: homes of less than \$2000 value might be derated half, and so forth, up to a final bracket allowing properties worth from \$3500 to \$4000 to be derated 10 percent. A referendum of those qualified to vote on money bills is required to inaugurate the classification; thus far, Toronto and New Toronto have accepted the option.²¹

Local Option

Although in some respects Canadian history and Canadian tax practice suggest that the Canadians have a lesser regard for local autonomy than do the people across the border, in other respects their regard for local option goes much

further (and sometimes perhaps too far). In several Canadian Provinces, cities and towns are governed in large part by special charters and local acts. And, as previously explained, local governments are frequently allowed much discretion in choosing a local property tax base.

Local option, whether by special or by general law, has its highest development, perhaps, in British Columbia, where a municipality may exempt improvements or assess them (up to 75 percent of true value); and may even to some extent "write its own ticket" as to the definition of improvements. Thus in the Victoria area in addition to four different tax rates we find the following practices with regard to rating improvements: Victoria rates them at 65 percent, Oak Bay at 45, Saanich at 55, and Esquimalt at 50 percent of value.²²

This extreme diversity of local tax practice could hardly be acceptable were it not for the fact that there is often no intermediate level of government between local and provincial and were there not complete or almost complete separation between central and local revenue sources. As it is, however, the need for equalization of tax bases still persists both because school districts overlap municipal districts and because school aids are adjusted to local property tax resources. The equalization process is much complicated by the extreme diversity of local tax practice.

In one respect the Canadians' penchant for allowing freedom to their municipalities can be clearly applauded. They

²⁰ For an account of Australian practice, see J. M. Garland, *Economic Aspects of Australian Land Taxation* (Melbourne University Press: 1934) and James H. Gilbert, *The Tax Systems of Australia* (University of Oregon Press: 1943). The author has also relied on an unpublished manuscript by Margaret Power. Obviously it is extremely difficult to abstract improvements for land and attempt to evaluate the latter as though the former did not exist. Take the case, for instance, of three adjacent lots one of which supports a hotel while the other two are vacant. The three lots may be assigned equal value on the score that the hotel might with equal propriety have been built on any one of them.

Actually, the commitment has been made to use one of the lots for the hotel and the others could be used in an identical way only by destroying the business value of all of them. Perhaps equally valuable use may be found for the idle lots but this, at least, is far from self-evident.

²¹ H. Carl Goldenberg, *Municipal Finance in Canada*, a study prepared for the Royal Commission on Dominion-Provincial Relations (Ottawa: 1939), p. 100; *Statutes of Ontario*, 1919, chap. 50.

²² H. Carl Goldenberg, *Provincial-Municipal Relations in British Columbia* (1947), p. 178.

have no counterpart of the tight over-all tax ceilings inaugurated by some American states during the recent depression era. This leniency, quite properly, is not extended to the control of indebtedness.

Income as Property

Before World War II and recent Dominion-Provincial agreements, the Provinces of New Brunswick and Nova Scotia provided for the assessment of income along with personal property and real estate as a regular feature of compiling the tax roll. Thus a professional man with a \$10,000 income and a \$10,000 home found himself presumably on the property tax rolls with two \$10,000 items. This practice was probably a reflection of New England influence and may have been brought to the Provinces by the emigrating loyalists. The system with modifications is applied now in New Hampshire. In the Provinces, with assessment of income largely in the hands of local assessors, the administration, as might be expected, was ineffective and irregular.

Conclusion and Appraisal

What then do we have to learn from the Canadians concerning the selection of a suitable property tax base?

One is on sure ground in saying that the elimination of intangibles, all but unanimous in Canada, sets a good example for the American states. The case for also throwing out the tangible personal property tax, with or without the substitution of a business tax, is not so clear. The tangible, personal property tax, even where limited to farm and business inventories and equipment, is open to serious objections. First, it is difficult to administer. A competent assessor under favorable circumstances usually can, after viewing the premises,

approximate with fair precision the value of land and buildings. The same cannot be said for his judgment as to the value of a stock of goods. Of course, he can go to the company's books (if any) or to income tax returns (if any are available). But this will be more costly and probably provide less accurate results than in the case of real estate.

Secondly, the levy on inventories as of a particular day affords injustice: (a) because assessment day may not be representative, and (b) because, with varying rates of turnover, some businesses may do as much business as others although the former carry less stock.

Thirdly, the tax is clearly a business cost and as such is probably passed on to consumers.

On the other hand, these objections need not be conclusive. Administrative difficulties have not always proved insurmountable. The Canadian business tax substitutes, if easier to administer, are also marked by some extremely arbitrary features. Here again we are confronted by the fact that adequacy in taxation, particularly perhaps at the local level, is a tyrant that cannot be appeased with first-rate taxes.

The Canadian practice of placing part of the property tax levy on occupants does spread the impact of the tax but it also makes it more difficult to collect.

The practice of exempting or derating improvements heads into a much-mooted area of tax conflict that cannot be reviewed with any satisfactory degree of thoroughness here. It strikes a responsive chord in those who, like the author, hold that land is an especially suitable subject for taxation and that little, if any, rational ground can be found for taxing improvements. To mention one factor only, land values are created mainly by the community at large and improvements are the product of individual

creative endeavor. On the other hand, here again we face the rapacious demands of the fisc. One hopes that the good accomplished by public expenditures more than offsets the bad effects of bad taxes.

The case of classification in Ontario, permitting discrimination in favor of small homes, offers a suggestion to some American legislatures not bound hand and foot by uniformity clauses. This looks like a promising device for mitigating the regressivity of the American general property tax and of encouraging low-cost housing. Incidentally, uniformity clauses themselves have out-lived their usefulness and ought to be the

subject of more wide-spread attack. The Canadian penchant for letting municipalities "run wild" in their choice of a tax base seems to involve too much confusion to serve as an example worth emulating. On the other hand, the Canadians have generally avoided the fatal mistake of binding their municipalities with property tax ceilings.

Perhaps the best answer to the local tax problem is to be found in some workable combination of property and income taxation not yet achieved in either country. Of this and of property tax administration more will be said in a subsequent article.

Gas and Electricity in Britain: A Study in Duopoly

By F. R. JERVIS*

THE solutions to duopoly have been many and various, depending upon the different assumptions made. Yet it is surprising that no attempt has been made to apply the theories to, or to evolve a theory from a group of industries where the phenomenon of duopoly is very evident.

Duopoly theory assumes that there are two suppliers of the same product in the one market. The commodity supplied is not differentiated in the pure theory of duopoly, although differentiation of the product is often referred to as an element of monopoly in an ordinarily competitive market.

Gas and electricity are two different products, each with their separate demand curves. But the demand for gas or electricity is a derived demand for the utilities of lighting, heating, cooking, and power. They are alternative methods of providing the same utilities to the consumer. While there are groups of consumers who prefer, on general grounds, one method of satisfaction to the other, for different uses, there are groups who are indifferent to the technical merits, and who are influenced by the comparative prices of the commodities. Gas and electricity are therefore competitive¹ sources of consumers' utilities, although the presence of pockets of consumers attached to one or another of the commodities will be a limiting factor to the competition between the two products. It is

not known what proportion of the consumers are fixed in this way. In any case, competition would take effect among those who are indifferent, i.e., it would take place at the margin.

The economic structure of the two industries is very similar, at least in Great Britain. Both possess a central plant with an octopoid distributing system. Both sell their products on an instantaneous demand basis. The undertaking has to be ready to produce the commodity as it is required, and the demand varies from hour to hour, from day to day, and from one season to another. Neither commodity can be economically stored for a long period. Gas holders are used to even out the hourly fluctuations; it is unusual for gas to be stored for longer than twenty-four hours. In public utility supply, electricity as such is not stored. (Technically, of course, it is possible to store electricity, as in submarine or car batteries, but it is uneconomical to store on a large scale. It is cheaper to provide the generating equipment than the storage batteries.) Generally, the electricity has a higher proportion of fixed to running costs than has the gas industry.

While the economic structure is similar, the tariff structure varies greatly with the two industries, partly owing to the different dates at which the industries were established, and partly owing to the method of control adopted by Parlia-

gas. Electricity is more extensively used for power, but the gas engine has not completely died out. There is one example, The Midland Drapery Store, Derby, which buys gas and drives gas engines to operate dynamos to light the premises by electricity. This was because the electricity tariff for shops was dearer. They are not completely competitive, but it is the marginal point which is important, where the range of competition takes place.

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¹ Gas and electricity are competitive in Britain for lighting. Gas being the older industry is well established, and there is a large amount of gas lighting in private houses, although all *new* houses are electric. Gas is also extensively used for street lighting, e.g., Pall Mall, London was lit up to celebrate the Peace of Amiens, and has always been lit by

ment. This difference in the method of charging affects the form of competition between the two industries.

Gas and electricity are supplied in Britain mainly by companies and by local authorities. In the larger towns gas supply is fairly evenly divided between the two forms of ownership. Electricity in the large towns is supplied for the most part by the municipality. Local authorities supply, in the majority of cases, the more densely populated urban areas, while the companies are left with the more sparsely populated urban and rural areas. (London, owing to past legislation, is a law unto itself.)

In about half of the large towns there is "competition" between the different industries because of the difference in ownership. The local authority supplies electricity, gas is supplied by a company regulated by Parliament. In the other half, the ultimate ownership is the same, i.e., the local authority owns the gas and electricity undertakings, although they may be operated as separate departments.

There are thus two main conditions of supply: competition between a gas company and the local authority's electricity department, or monopoly under the local authority. Cases where there is supply by a gas company and by an electricity company are of minor importance with regard to the total output.

It is necessary to make one point clear. It will not be attempted to make a direct comparison between the economics of operation under "competition" and under "monopoly." It is not a simple matter of comparing costs and prices in areas where there is competition with those in areas where the undertakings have the same owner. The commodity in each case is not a physical unit which can be directly compared. It is a unit plus a service, and the selling price will partly depend on the cost of production,

and the latter will be governed, inter alia, by the cost of raw materials (some undertakings far from the coal fields have a low coal cost because of easy access to sea-borne supplies), by the degree of utilisation of the plant (the load factor), by the density of the consumer per square mile, by the proportion between commercial, industrial and domestic users, and by the effects upon total revenue of the different prices charged to the different classes of consumers. Mr. J. M. Fleming suggests, for example, that the managers of socialised gas works might have their efficiency checked by a comparison of their cost and output data.² This would be valueless. Any results obtained from the comparisons of different undertakings would be vitiated by the different local circumstances of each plant. Some remarkable results, in terms of selling price, have been achieved by undertakings whose size is generally considered to be uneconomic.

Duopoly is historically the result of a new monopoly invading the field of an existing monopoly. Duopoly has arisen not from the amalgamation of hitherto competitors, but by a new monopolist competing with the old.

Duopoly and monopoly are used in rather a restricted sense here in Britain. Neither gas nor electricity enjoy a monopoly. Both are in competition with other sources of heat, light and power, with candles, oil, coal, and with independent plant operated by the consumer.

In the early days of gas supply, competitive conditions were the rule. One or more companies would be granted powers to operate in the same area as Parliament did not favour granting monopolies. Suppliers of gas by public authorities, although not unknown, were comparatively rare. The competition be-

² *Economic Journal*. December 1944, p. 323.

tween the gas companies, especially in London, where there were often three companies operating in the same area, led to the companies agreeing to divide up the areas amongst themselves, and not to poach upon each others' territories. It was the familiar phenomenon of the case of competition, left to itself, tending towards monopoly, especially where there were economies of scale, an octopoid plant, and costs of transference between one supplier and another.

Parliament recognized this position in 1860 by allocating definite areas of supply to each undertaking, subject to certain obligations to give a supply, as in 1847 Parliament had subjected the companies to a 10% maximum dividend. Gas became a statutory, regulated monopoly and, in this period until 1882, a number of undertakings were acquired or started by the local authorities.

The history of the regulation of electricity supply from the Act of 1882, while of great interest, has often been treated, and need not detain us here. It is sufficient to say that from then on we have had two competing industries supplying services which are monopolies in the respective areas of supply.

There are over five hundred authorised gas undertakings and the same number of electricity. Many of these are small. A false idea of the industries is obtained by looking at the total number of suppliers. What is important is that a few large undertakings supply the majority of the customers served. (The Gas Light and Coke Company, London, for example, supplies about a quarter of the gas used in Great Britain.)

Apart from London, out of 44 towns with populations exceeding 100,000, only two have their electricity supplied by companies, i.e., Newcastle and Bournemouth. In the others the supply is in the hands of the local authority. As

regards gas supply in the same towns, 26 are operated by the local authority and 18 by companies, including again Newcastle and Bournemouth.

Where the local authority operates both services there is "monopoly," although the undertakings may be operated by separate committees. The rate-payers are the ultimate entrepreneurs. Where companies operate, there is complete separation of ownership and competition between companies or between companies and the municipalities. (In some of the smaller towns there are examples of companies supplying both gas and electricity, but in terms of output for the country as a whole, they may be ignored here.)

Out of the 44 cases, 26 are examples of "monopoly" and 18 of "competition," and, of these, two are by companies. The remaining 16 are examples of "private" gas competing with "public" electricity. In no case where the local authority owns the older industry, gas, does it allow competition from an electricity company.

In the larger towns, with populations of over 200,000, there are 11 cases of joint ownership and 8 of separate ownership. In towns of over half a million, 4 are joint and 2 have separate ownership.

The situation in London would require an article in itself. The lines of demarcation follow those laid down by past legislation. Some municipalities are forbidden to supply outside their local government area (in the provinces the larger municipalities supply the surrounding areas as a general rule); some companies follow, and some overlap, local government areas. Broadly, we may say that there is a greater degree of company management. In gas, the Gas Light and Coke Company operates in the north from Southend to the west of London. South of the Thames there are

three large companies. In electricity there are a larger number of companies. Some of them quite small. A number of the gas companies operate in areas which overlap several electricity areas, being faced with competition from municipal or company areas in different parts of their system.

Very roughly, taking it as a whole, there is "monopoly" in half the country, and "competition" in the other half.

"Competition"

Where ownership is separate, the management of each is anxious to obtain as much business as possible from the other. The success or failure of the rival business will be of no consequence. Besides the rivalry of different "firms" there is often the rivalry of the different form of ownership, and anxiety on the part of both managements to prove that their chosen form is the best. This is intensified by differentiation of the product. Although, from the consumer's point of view, each is an alternative method of supplying the same or similar utility, from the supplier's point of view it is something different. Both industries require a training in a specialised technical knowledge, and the training of the gas engineer is different from the training of the electrical engineer.

Differentiation of the product may also lead to the belief that a price reduction will not cause the same retaliatory action on the part of the other supplier, due to the fact that his cost structure and problems may not be fully appreciated, as it would be if the duopolist supplied the same product. This is particularly important where one competitor believes that his product will eventually drive the other completely from the market, a view quite prevalent in electrical circles.

A municipality, operating a trading concern is often in an advantageous

position compared with a competing company because of the other and non-trading functions of the local authority. Before the licensing of public service vehicles under the traffic commissioners, many local authorities which operated transport systems would limit the competition of outside omnibus companies within the municipal area; often forcing them to charge a higher, or a minimum fare, when running within the municipal boundaries.

The municipality may be in the same privileged position where it runs a housing estate and at the same time operates the electricity department. Restrictions have been placed by some authorities upon the services which the tenants are permitted to use. Houses have been built with no fireplaces, so that tenants of council houses will have to live in an all-electric house. In some cases the fixed-charge portion of the two-part electricity tariff has been collected along with the rent, a more subtle method of dealing with a competitor. Many gas companies had to go to Parliament to obtain a special clause to be inserted in their acts to prevent some such form of unfair trading by the local authority. This clause, the "Kettering" clause, was the object of a general Act in 1934.

"By this Act housing authorities are prohibited from making regulations designed to limit the use of gas supplied within the company's area. Does it not seem . . . a very remarkable thing that there should be placed upon the Statute Book in the year of grace nineteen hundred and thirty four, an Act of the King's Parliament having such purpose?"³

If a municipality acquires or establishes an undertaking with the object of giving the public a better service at a lower price than the public could obtain from a company, then it is at least showing a

³ Dr. Charles Carpenter to the shareholders of the South Metropolitan Gas Company, June 2, 1935.

lack of faith in their own product, and in their own business ability, to attack in this way.

"It was an English municipality that filled up the pipes on its housing estate with cement so as to make it impossible for its tenants to get the local company's gas supply, but they would have to purchase the electricity supplied by the municipality."⁴

Gas companies in some areas have always had difficulty in being able to supply Council houses. At times the housing department and the electricity department of the local authority have worked closely together, so that by the time the gas company is aware of a change in tenancy, it is presented with a fait accompli, and the new tenant has been "sold" the idea of electricity.

This attitude is not general. In many local authority undertakings the employees are forbidden to mention gas, on the principle that disparagement of a rival is bad business.

Where the local authority supplying electricity is also the lighting authority for the area, the provision of street lighting is a further example of a local authority using its dual function to foster its own undertaking.

"The percentage [of public lamps lit by gas] would be even greater if gas were judged on its merits; but municipalities owning electricity undertakings in many cases will not give gas a fair chance on merits and economics."⁵

"Monopoly"

Where the same organisation owns both the gas and electricity undertakings, the position is different. Although there are cases where a company is in this position as far as the large towns are concerned, all cases of "joint" ownership occur with municipal undertakings. It

is from this point of view that the problem will be considered.

When a municipality owns both the gas and the electricity works, either of two policies may be pursued. The municipality may leave the two undertakings in the hands of separate committees, each independent of the other, with a general supervision by the whole council; or the municipality may control the two undertakings by one committee; or have, what is in effect the same thing, a third committee to supervise the activities of separate gas and electricity committees, particularly in those spheres where they are likely to be competitive.

Where competition is allowed between the departments the position will not be very different from that which takes place where there are two separate suppliers. The interests of the executives of each department in the success of their own particular undertaking and employment will go far towards bringing about a "competitive" state of affairs. There will still be a difference, however. If one of the departments happened to be particularly successful at the expense of the other, local political feeling might be aroused, with the result that a halt might be called upon the activities of the too successful department. A minor amount of success will preserve competition, a major amount of success will lead to co-ordination and monopoly. If both succeed at the expense of some outside interest, e.g., coal merchants or oil dealers, the limitations will not apply.

There are, however, many cases where the local authority has decided to co-ordinate the activities of the two departments and to run them as one industry. One reason is that the popularity and the sales of electricity, particularly in the domestic field, have made great prog-

⁴ I. M. Horobin, *The Pleasures of Planning* (London: Macmillan, 1935), p. 147.

⁵ T. P. Ridley, "The Commercial Development of the Gas Industry in Great Britain," (*Report to the American Gas Association*, 1933).

ress. The gas industry, being older, may have appeared to have reached a static state in some places, or even to be declining. The competition of a growing newcomer will affect the position of a century-old established undertaking. Where municipalities feel that they are faced with actual or potential financial loss on the money which they have invested in the provision of gas supply, they are tempted to prevent electrical development to avoid that loss. This is the complaint by electrical interests where such is believed to be the case.

It is complained that these local authorities encourage the use of gas only by such devices as retaining gas street lighting "although electricity is much better and cheaper for the purpose," by installing gas cookers and wash boilers in new council houses without consulting the wishes of the individual tenants (council houses again!), by declining to reduce the price of electricity, by refusing to adopt assisted wiring schemes whereby new consumers of electricity are enabled to have their houses wired on easy payment terms, by refusing to reduce the hire charges of domestic appliances, and by refusing to permit canvassing for electricity.⁶

"Such proposals as the opening of joint gas and electricity showrooms, or joint meter reading, or the refusal to permit canvassing by the electricity department of houses in which gas cookers are installed, or the sending out of electricity accounts in envelopes stamped with the slogan 'use more gas,' were typical of the narrow-minded attitude which not only was restricting the development of electricity undertakings, but which was detrimental to the prosperity of the country as a whole."⁷

Alderman Sir Percy Bower, chairman of the Birmingham Electric Supply Com-

mittee, writing in the *Electrical Development Association Bulletin* for February 1934, is aware of the difficulties in which municipalities are placed. The position is an embarrassing one, he states. They have invested public money in undertakings which are, in a broad sense, mutually destructive. Neither can develop except at the expense of the other. (This is not necessarily true. Development can take place by acquiring fresh markets and fresh uses for gas and electricity, but there is a considerable degree of truth in the statement as far as existing business is concerned.) As gas was the older investment the instinctive tendency is to preserve it by discouraging the growth of electricity, by restricting the laying of mains, by keeping up the price of electricity, especially for cooking, heating and water heating, and by giving gas preference in housing schemes, and by restricting propaganda salesmanship.

"One or more of these methods may be found in operation, in greater or less degree, in several towns with joint ownership, and the excuse invariably is that the Council, as trustees for the ratepayers cannot permit one of its investments to be destroyed by encouraging the growth of the other."⁸

Sir Percy went on to quote two instances of arrested development. The Finance Committee of Southport had recommended that a reduction be permitted in the cost of electricity for lighting, but not for cooking and heating. A special committee at Manchester did not recommend amalgamation of the gas and electricity departments at present. The electricity department gave an assurance that it was not in favour of "aggressive competition" with the gas department. "aggressive competition" is not defined, but it appears as though the electricity department was to compete, but not too

⁶ I.M.E.A. *Journal*, February 1935.

⁷ Presidential address to I.M.E.A. convention, 1934, reported in *Electrical Trading*, June 1934.

⁸ *Electrical Development Association Bulletin*, February 1934.

successfully, like permitting one's employer to win at golf.

"Another example of gas influence preventing the adoption of electric cooking has cropped up, this time at Oldham. Because the gas committee provides a 'free' service to Council houses on condition that gas is used for cooking and heating, the Housing Committee has declined to allow a tenant to have an electric cooker. Apart from the doubtful legality of the Housing Committee's decision, why should a Council be allowed to choke its tenants against their will [sic]—and a Council moreover, which is enlightened enough to supply electricity as well?"⁹

Although electrical development is retarded in this way in some towns, there is one compensation of theoretical and some practical importance. If the electricity department is held back in this way, it has one advantage. If there is a lack of "aggressiveness" in one department, there will probably be the same lack of aggressiveness in a competing department. To put the matter in another way: Where there is separate ownership, the electricity undertaking will be faced with a different kind of gas management; if one is more enterprising, it will probably be faced with more enterprising competition.

The deleterious effect of joint ownership is not apparent in the supply of electricity only. It must be remembered that when the municipalities acquired the gas undertakings, the business of gas supply had made considerable progress. It was no longer a speculative venture. In a number of cases municipalities acquired well-established and successful undertakings which were able, when such was the policy, to make handsome contributions to the municipal funds in relief of the rates. When electricity works were acquired or built by the local

authorities, the electricity industry was not in the position in which it is today. Then, it was highly speculative and was likely to involve a contribution from the rates (local government taxes).

"In big towns where the tramway departments handle a very large traffic and have very little to fear from competition, they have not much difficulty in making a good profit, whereas the electricity departments have far more competition to face and find it difficult to make both ends meet. Hence there is distinct temptation to make both of these show a reasonable return on the capital outlay, by transferring some of the surplus of the tramway department to the electricity department in the form of an abnormally high price for current."¹⁰

Since the above was written, the position has been reversed. The electricity department is often one of the most successful of the trading departments, while the tramways have succumbed largely to the competition of the petrol 'bus, and losses have fallen on the rates. (One of the advantages of the electric trolley bus is that it supplies an electricity load to the municipal electricity station.)

The difference between the position in 1912 and now is brought out by comparing the ideas which were then current with present-day policies. Whereas water and gas supply were often regarded as essential services to be managed in the interests of the whole community, electricity supply was for the use of a few only. Professor Knoop, after giving the arguments for subsidising essential services out of the rates on social grounds, concludes with the remark that it does not seem possible on the ground of social expediency to justify the incurring of any deficiency at all in connection with an electricity undertaking.¹¹

It is a complaint that in certain towns where the gas department was contributing to the rates, the electricity under-

⁹ *Electrical Review*, January 18, 1935.

¹⁰ Knoop, *Municipal Trading* (London: Macmillan, 1912), p. 129.

¹¹ Knoop, *op. cit.*, p. 323.

taking was operating at a loss which was being borne by the rates. In other words, some of the profits of the gas undertaking, instead of being used to develop the gas department, were being used to subsidise its chief rival. There is probably truth in both contentions.

The previous sections have dealt with some of the limitations of competition, but they have been limitations only. There has been competition, or "duopoly" between the two industries throughout their histories.

The electricity industry has always had to face competition since its inception. In this country gas was well developed and established in the lighting field. Electricity, however, had to face greater difficulties than that of ordinary commercial competition. As it was believed that electric lighting would eventually supersede gas and the general feeling was against local monopolies, electricity was regarded as a full-blown monopoly before it had the chance to become established. Parliament therefore enacted that the local authorities were entitled to take over any company's undertaking in their area after a certain number of years, similar to the provisions of the Tramways Act. This halted electrical development for a generation. Many of the evils which are suffered by the industry of today, the multiplicity of small and often uneconomic distributive areas, owe their existence to the fears of nineteenth century legislators. Parliament, to prevent exploitation by a powerful monopoly, let the industry start in a weak state.

After the gas industry had become well established in the lighting field, electricity came along with a new product which threatened to have the same

effect on the gas industry as the advent of the railways had on the canal system of the country. From 1879-1892 there was a general decline of gas shares, and the movement towards the municipalization of gas companies received a severe check.¹² Local authorities were not going to be saddled with a dying industry. If the gas industry had been content to go on as before, there would be only a small and unimportant gas industry today. Yet after the temporary fears of extinction, the industry expanded rapidly after that date. The use of gas as a method of heat was extended. Gas undertakings offered increasing facilities to consumers by the supply of heating and cooking apparatus on easy terms, and by the improvement of the prepayment meter. Even lighting was improved by the invention of the gas mantle (instead of the naked flare). In these two industries, no sooner has there been an invention of importance in the utilisation of one product, than there is induced a corresponding invention in the competitive industry.

"Prior to 1883, the expanding gas industry moved along easily, earning adequate returns for financial support, and always with the comfortable thought that it enjoyed a practical monopoly in the supply of light. But just fifty years ago, the beginning of the application of electricity to public and domestic lighting awakened it from the fancied security into which it had been lulled, and in this particular sphere it has had to wage a struggle for its share of business . . . opposition resulting in the loss of some of the lighting load has stimulated all associated with it to find new outlets for the use of gas."¹³

The same state of affairs existed in the United States. That the gas industry was not seriously injured by electric lighting competition is indicated by the rapid subsequent growth in gas sales to

¹² *Balfour Report*, "Further Factors," (London: H. M. Stationery Office, 1928), p. 307.

¹³ Mr. Nisbet, presidential address to the North British Association of Gas Managers, *Gas Journal*, April 12, 1933.

more than twenty times their volume when this competition began.¹⁴

In American and Canada electricity has been more developed than in this country, yet the gas industry has managed to hold its own in the face of the stronger competition.

"There is a danger with all of us becoming so self satisfied with our progress that before we are aware of it we have fallen asleep, and much loss of business results from our inactivity. But real competition from electricity, oil, coal and other fuels has tended to keep us alert . . . and we no longer fear, as we once did, the competition of the fuels mentioned. The use of electrical competition in the Old Country will be found in the long run to be one of the best things that would ever happen to the gas business."¹⁵

In Canada and the United States there are numerous examples of the same undertaking supplying electricity and and gas. This combined control is not without certain defects. In some concerns it would appear that it has been thought expedient to hold back the fair development of the appliances for one or other fuel. There would appear to be a managerial policy in such combined undertakings to allocate the power and light load to electricity and heating to gas.

¹⁴ L. R. Nash, *Public Utility Rates*, p. 77.

Conclusions

The following conclusions seem warranted from the facts.

(1) Competition has been beneficial to the consumer, domestic, commercial and industrial. Both industries have developed, and competition has led to the provision of better apparatus, the devising of better methods of charging, and a lowering of price.

(2) Competition has not lead to "monopoly" generally, because of the differentiation of the product, and of the form of ownership.

(3) Public bodies act no differently from private when their position is threatened. A monopoly is always a monopoly. A public body may be in a stronger position to use unfair methods.

(4) The new proposed organisations, sweeping away both the company and the municipality, with a National Gas Board, and a National Electricity Board, both buying their raw material from the National Coal Board which of course is a direct competitor of the two industries, all under one "ownership," the Ministry of Fuel, presents interesting problems of Triopoly.

¹⁵ G. W. Allen, of the Canadian Gas Association, 1934.

Escape Into Decentralization?

By SVEND RIEMER*

IN the current literature of the social sciences we talk about "decentralization" in connection with three distinct issues: (1) patterns of city growth and models for city planning, (2) means of social control, and (3) the retainment of democratic processes in an era of highly centralized social organization. In this article, interest is focussed on the two former issues inasmuch as they are most closely related to critical evaluations of modern urbanism.

Decentralization and Urban Growth

The plea for decentralization is frequently supported by references to already existing trends. In the discussion of urban decentralization we have been challenged to observe the expansion of our sprawling metropolitan communities far into the surrounding hinterland.¹ Our attention is called to the fact that urban development, in recent decades, has favored peripheral extension rather than nuclear concentration. Population increase has been confined largely to the metropolitan suburb.² The unincorporated areas have increased their populations at a higher rate of speed than have the inner circles of the city.³ These facts, indeed, are incontestable. But we may

doubt that evidence is established in this manner for truly changing patterns of urban growth.

Growth, in the history of the rapidly expanding communities of the United States, has always been peripheral growth.⁴ Incorporation procedures have always lagged behind the actual expansion of the urban community.⁵ Any distinction between metropolitan region, suburb and city proper is necessarily an arbitrary one. Population increase in the outskirts is, thus, a simple phenomenon of growth and does not indicate a new or revolutionary trend toward decentralization.

As far as the "loop,"⁶ i.e., the inner circle of the city, is concerned, little significant information is gained from population figures as such. The functional importance of the city center, its shopping districts, its commercial districts, its administrative and business offices as well as its facilities for commercial entertainment, cannot be measured adequately by the enumeration of the resident population. We need information—which is sadly lacking—about the daytime population and evening crowds in order to evaluate tendencies of growth or decline.⁷ The standstill of territorial expansion of the "loop" as such and the

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¹ Cf., Homer Hoyt, "The Structure of American Cities in the Post-War Era," *The American Journal of Sociology*, vol. XLVIII, No. 4, p. 477.

² Cf., Chauncey D. Harris, "Suburbs," *The American Journal of Sociology*, vol. XLIX, No. 1, pp. 1ff.

³ "In 10 metropolitan districts more than 60 percent of the total population live outside the political boundaries of the chief city." Cf., Chauncey D. Harris, *op. cit.*, p. 2. Information based on U.S. Housing Census, 1940.

⁴ This is easily verified by the inspection of land use maps indicating the age of dwellings. See, for example: Calvin F. Schmid, *Social Trends in Seattle* (Seattle: 1944), pp. 220-221.

⁵ Cf., "Our Cities, Their Role in the National Economy," National Resources Committee, June 1937. U. S. Government Printing Office, p. 80.

⁶ The term "loop" refers, strictly speaking, only to the city of Chicago where the elevated train throws a loop around the central business district. Due to the usage of the term in a number of classical studies in land use and urban ecology, the term has been applied generally to the center of our metropolitan districts. For the origin of the term, see Ernest W. Burgess, "The Growth of the City," *The City*, by R. E. Park, E. W. Burgess and R. D. McKenzie (The University of Chicago Press, 1925), pp. 47 ff.

⁷ Cf., Gerald Breeze, *The Day-Time Population in Downtown Chicago*, Doctor's Dissertation (The University of Chicago: 1947).

ensuing dilemma of adjacent slum properties held at speculative land values does not necessarily indicate arrested development. In the modern skyscraper horizontal expansion has been replaced by vertical expansion. Improvements of the transportation system, also, extend the usefulness of the loop area without any need for proportional territorial expansion.

Somewhat more complicated, to be sure, is the relationship between the areas of blight in the inner city and the suburban developments of residential as well as industrial character. The evacuation of blighted areas with simultaneous growth of suburban districts has been amply demonstrated, and there can be no doubt that our city finances are threatened by the withdrawal of taxable incomes to the unincorporated areas.⁸ There can be no doubt that the duplication of community services in both the deteriorating areas of the inner city as well as in the outskirts raises the tax burden imposed upon the individual citizen.⁹ It would be wrong, however, to interpret these developments in terms of a specific trend toward decentralization. We are confronted with a failure to reclaim by adequate means of city planning wide territories assigned to residential land uses, yet abandoned for more habitable environment. The trend is not toward "decentralization" but toward better residential districts which—due to unfortunate circumstances—are available only at the outskirts of the city, and accessible only at the cost of long commuting distances.

⁸The effect of this condition on problems of urban planning is briefly and concisely discussed in: S. E. Sanders and A. J. Rabuck, *New City Patterns* (New York: Reinhold Publishing Corporation, 1946), pp. 22 ff.

⁹"As blight develops and spreads, the urban population moves onto the next pasture . . . Naturally, they cannot take sewers, waterworks, schools, libraries, fire and police stations, pavements and the whole gamut of public works and facilities, not to mention homes and other private buildings with them. These are all left behind and duplicated at enormous

In the location of factories preference has shifted in recent years toward the outer belt of the city.¹⁰ The reasons are obvious. Production on the conveyor belt requires plant construction on a one-floor level. The plant, in this manner, extends over a wide area. Economic factors, thus, recommend the location of factories at the urban fringe where land values are relatively low. Easy access to transportation facilities also enters into the picture, particularly where the volume of either raw materials or the final product is large, and where the lack of planning for transportation has ensnared the inner city in a maze of freight yards with difficult approaches.

The location of factories, in turn, draws the working population into its vicinity.¹¹ Here we stand confronted with a new phenomenon which delegates a new and important function to the urban fringe: the housing of manual laborers. It would be a mistake, however, to consider even these developments as a trend toward decentralization. What we observe is a change in the arrangement of land uses in the urban community. Factories move to the fringe but do not lose contact with the built-up city. They move as far as they have to move in order to gain easy access to the inter-urban communication system, and in order to avoid the burden of high land values. The dependency upon the labor supply in the large city offers a strong resistance to the centrifugal movement.

A term like "decentralization" can be defined, of course, in different ways to

expense in the outlying areas . . ." S. E. Sanders and A. J. Rabuck, *op. cit.*, p. 20.

¹⁰"Instead of encircling the retail business center the industrial areas followed river valleys, water courses, and railroad lines in long bands and . . . the factories were now tending to locate along outer-belt-line railroads on the edge of the city." Cf., Homer Hoyt, *op. cit.*, p. 477.

¹¹"The poorer working classes would tend to live in areas near the smoke and noise of factories . . ." Homer Hoyt, *op. cit.*, p. 477.

serve different purposes. It seems to imply, however, a shift of emphasis from the central to the peripheral parts of the city. No such shift seems to be involved in the phenomenon of urban growth as such. Nor can the re-arrangement of urban land-uses be considered as a trend toward "decentralization." Factories locate at the edge of the city in order to gain easy access to transportation facilities, not in the pursuit of a fugitive pattern or to avoid urban concentration.

Dispersion as a Form of Decentralization

Urban decentralization, however, must be viewed in a somewhat wider perspective. Dispersion is a specific form of decentralization. It raises the question whether there has been an emphasis, in recent decades, upon the growth of smaller communities at the cost of the large urban concentrations. While this is generally asserted to be the case, statistical information contradicts this opinion and deserves analysis with regard to its ideological nature.¹² Actual conditions are cautiously and accurately stated by Warren S. Thompson in one of his recent publications:

"... 133 metropolitan districts—large cities and the thickly settled areas surrounding them for which both 1930 and 1940 census data are available—now contain 62 million people or 47.3 per cent of the total population and these districts grew by 8.2 per cent between 1930 and 1940, while the population in the rest of the country grew but 6.4 per cent. It is true that the larger part of the growth of metropolitan districts in absolute numbers, as well as in proportion, was outside the central cities—the cities growing by 2,008,000 or 5.0 per cent, while the outside territory grew by 2,733,000 or

15.8 per cent, but these 133 districts drew a total of 4,741,000, thus 53 per cent of our total increase during the decade went to these large communities."¹³

What has been described as and attributed to a trend toward decentralization may well be understood simply as a trend toward further growth, which, naturally, manifests itself as an extension of urban land uses wherever they can be extended, i.e., at the periphery of the urban settlement. What statistically appears as a semblance of dispersion may be nothing but a reflection of a lag in incorporation procedures.

Such urban growth as there was, to be sure, has sent the city sprawling into its hinterland. Territorial growth, as a matter of fact, has exceeded growth in terms of population increase. This circumstance may account for the impression of a movement toward decentralization. Territorial growth is dependent not only upon the increase of the population as such; it is dependent also upon the breakdown of the population into household units. Emphasis upon the small family, early marriages and the continuous undoubling of family units accentuate the trend toward territorial growth far beyond that of the population as such.

In addition, recent decades have blessed us with the implementation of low density standards. Gradually, albeit against the stubborn resistance of vested interests, the size of the individual lot has increased. Fewer families are housed per acre than was the case 10 or 20 years ago. We have to pay, naturally, for the air, sunlight and the open green spaces, for backyards and front yards and a generous street outlay with a cumulative increase in the territory

¹² "Small communities are not reservoirs of populations and major influences on national thought, but their number and influence is likely to increase." And also: "Sociologists agree that the social strains and maladjustments brought about by the uneven cultural development and imperfect application of modern technological devices may result in social disintegration or chaos." The author of both quota-

tions does not give documentary or statistical evidence to either statement and that, in spite of the fact that the validity of the entire publication is based upon these assumptions. Cf., Wayland J. Hayes, *The Small Community Looks Ahead* (New York: Harcourt, Brace and Co., 1947), pp. 24 & 26.

¹³ *Plenty of People* (Lancaster, Penn.: The Jacques Cattell Press, 1944), p. 123.

of the built-up city. As we fight congestion and loosen the "urban fabric," we have to content ourselves with the unavoidable consequence of removing the belt-line of the city limits further and further into the metropolitan region.¹⁴ This development, however, cannot be interpreted as decentralization proper. Again, it indicates growth, albeit accentuated territorial growth. There is no support for the notion, then, that recognition of the organic unity of life in communities of limited size has favored the development of smaller urban centers at the cost of metropolitan growth.¹⁵

Decentralization, of course, may be desirable, irrespective of current trends. A word of caution, however, seems warranted against evaluative statements in favor of decentralization which avail themselves of the weight that is carried by reference to processes already under way and therefore seemingly irrevocable. If we want to plan for decentralization, we are confronted with a decision that has yet to be made.

Decentralization and Neighbourhood Planning

Current thought on planning purposes frequently attempts to justify in terms of social philosophy and sociological interpretation trends of construction and urban development which have proceeded, already; for a number of decades on the basis of limited technological considerations.¹⁶ Such is, undoubtedly, the case with the emphasis on neighbourhood planning and the support of a suburban way of life which is desirable

in some aspects, but certainly undesirable in others. The case for neighbourhood planning is often superficially linked with the plea for decentralization.¹⁷

Housing construction on a neighbourhood basis grew out of a variety of highly practical considerations. There is economy in large scale construction on a contiguous and limited area. Neighbourhood planning has its origin, practically, in the development of contiguous subdivisions during the booms of construction activity in the past. The Florida boom of the 1920's produced a tendency toward neighbourhood and community planning without reference to problems of community rehabilitation.¹⁸ Even unity of style was accepted as practice and principle, although this construction was aimed at social strata in which the desire for conspicuous consumption and conspicuous differentiation should have been particularly rampant.

Conducive to neighbourhood planning were, also, considerations of basic design. We have learned to consider the possibility of pooling space available for front and backyard on the individual lot into a contiguous garden and park area to be used for playgrounds and other recreation. Henry Wright¹⁹ taught us to re-evaluate the row-house in its heat-saving aspects. The differentiation of the street system is advantageous not only as a measure of economy, but permits the channelling of through-traffic in such a manner as to by-pass the residential districts. The resultant elimination of the

¹⁴ The results of "open developments" are discussed by Kate K. Liepmann, *The Journey to Work* (New York: Oxford University Press, 1944), pp. 98 ff.

¹⁵ For statements in favor of the small community as a "way of life," cf., Granville Hicks, *Small Town* (New York: The Macmillan Company, 1947); and, Arthur E. Morgan, *The Small Community* (New York: Harper and Brothers Co., 1942); and also; W. J. Hayes, *op. cit.* The disorganizing influences of life in the large cities are deplored in: Elmer T. Peterson (ed.), *Cities Are Abnormal* (Norman, Oklahoma: University of Oklahoma Press, 1946).

¹⁶ Most notable among the statements in favor of neighbourhood planning is the classical contribution by Clarence A. Perry, *Housing for the Machine Age* (New York: Russell Sage Foundation, 1939).

¹⁷ Cf., Frank Lloyd Wright, *When Democracy Builds* (University of Chicago Press, 1945).

¹⁸ Cf., Frederick Lewis Allen, chap. entitled, "Home Sweet Florida," *Only Yesterday* (Chicago: Bantam Edition, March, 1946).

¹⁹ *Re-Housing Urban America* (New York: Columbia University Press, 1938).

nuisance of traffic noise and the avoidance of traffic hazards are obvious.

The pioneering work of Henry Wright, however, was by no means dedicated to the cause of either "decentralization" or to the blessings of life in the small community. As a matter of fact, his interest was focussed upon the inner areas of the city smitten by blight rather than upon peripheral subdivisions to which many of his suggestions have been most frequently applied.²⁰ He was not articulate about the sociological implications of neighbourhood planning. Yet he started a trend toward large-scale residential planning which was carried by economies and efficiencies of design, linked by vague innuendoes only to the desirability of such unit planning as a foundation of a sound way of life.

Neighbourhood Planning as an Ideology

The apotheosis of neighbourhood planning as such is of a later date. It is a matter of ex-post-facto theorizing. Stein and Perry, in New York, were possibly the first to give expression to a generally-felt need for a philosophy of housing, or the visualization of a new way of life to accommodate the metropolitan population in planned neighbourhoods located, if possible, at the fringes of the built-up city.²¹ At the end of his well-known book we find Perry directing his first faltering steps toward a sociological rationalization of a trend in design originally carried by its technological merits. He alligns his thinking with sociological formulations about primary group as compared to secondary group organization and propounds the advantages to be gained even in an urban neighbourhood by the subtle means of

social control exerted upon the urban individual by close contacts of a primary group nature.²²

Lewis Mumford, furthermore, elaborated upon this sociological rationale for neighbourhood planning.²³ The wide scope of his work makes it possible to assess the structure of his social thought which has been of tremendous influence upon architects, housing officials and housing-conscious citizens. A romantic embellishment of the past is combined with almost Spenglerian despair at the demoralization of modern city life.²⁴ In a utopian tour de force, he asks for something like a religious revival as far as general social reform is concerned. In the field of housing we are reminded of his verbal commentary to the well-known documentary movie, *The City*, released at the New York Worlds Fair of 1939. The story begins with an idyllic picture of the New England village and, after glances into the mess of urban blight and the nerve-wracking disorganization of life in the modern metropolis, we are confronted with the bliss of suburban peace in the planned peripheral neighbourhood; to be specific, Greenbelt outside Washington, D. C.

Utopian planning, unfortunately, is apt to present a one-sided short-cut toward the desired ends. This short-cut can be gained only at the cost of neglect. Such thought about housing and city planning ignores the implications of modern large-scale industrial and commercial and administrative organization. No thought on housing or city planning can succeed that does not make the problem of industrial organization and the location of the industrial labor supply its central issue. Utopian planning is not truly comprehensive planning. It

²⁰ Henry Wright, *op. cit.*

²¹ Among the noted architects participating in this movement are Clarence Perry, Clarence Stein, Henry Churchill.

²² Cf., Clarence Perry, "Function of the Face-to-Face Community," *op. cit.*, pp. 215 ff.

²³ See his introduction to Ebenezer Howard, *Garden Cities of To-Morrow* (London: Faber and Faber, Ltd., 1946).

²⁴ For his social philosophy, cf., *The Condition of Man* (New York: Harcourt, Brace and Co., 1944).

may create temporary islands of bliss but, raised to a principle of general city planning, it defeats its own end. To rehouse present urban populations on the basis of extensive neighbourhood planning at low population densities would entail further territorial growth and increase of commuting distances.

Frank Lloyd Wright's Broad Acre City stems from a similar sociological orientation and deserves a similar criticism. There is some consideration in the vision of this great architect of the needs for concentration. The motor car, somewhat as a *deus ex machina*, is designed as the instrument to overcome the distances between place of work and place to live. The tangible plan, however, is limited to a small section of the entire community. Society is to be rehabilitated by improvements of the services provided in the dormitory suburb, by light and air, by privacy, by provision for recreation and by the cultivation of refined and sound leisure-time activities.

That this is a rather negative approach to the problem of city planning at the later stages of the industrialization process seems rather obvious. The planner takes flight from the central problem of an efficient spatial arrangement of the entire system of shelter required by our advanced civilization. The sheer numerical proportions involved in the elevation of Broad Acre City to a principle of modern housing are never investigated. Commuting distances required by the settlement of urban populations, at the rate of one acre per person, are never calculated. The consequences due to the cessation of farming on vast stretches of land surrounding our urban conglomerations may give a headache to the

planner concerned with the preservation and utilization of our national resources.²⁵

But these plans are not designed comprehensively, with all aspects of our social organization in mind. They are stimulated by those social functions of which the architect gains a clear grasp by immediate experience and informal observation. Perhaps the sociologist is to blame for not having carried to either architect or city planner or houser those survey techniques which alone enable us to cope with these momentous problems.

Decentralization as a Reaction against Urbanism

In the current literature and in numerous public statements the cause of decentralization is carried by frequent references to seemingly self-evident values aligned to a way of life which, to be sure, is neither urban or rural. It is based upon a wilful construct, derived not from the observation of any living conditions now in existence, but from a fervent negation of modern urbanism such as it is. We hear that our environment will have to be "scaled down to human size,"²⁶ thus indicating the inhuman robot character of our urban conglomerations. The neighbourhood is eulogized for its socializing qualities, without any reference to investigations which would prove this point.²⁷ There are obviously, good neighbourhoods and bad neighbourhoods. It is highly questionable whether neighbourhood formation as such carries advantages.

Neighbourhood control in the modern city has been replaced by other means of control. Urban living has become attractive due to the freedom gained by the individual in the selection of his associates.²⁸ Personal contacts are not de-

²⁵ See G. I. Burch and Elmer Pendell, *Human Breeding and Survival* (New York: Penguin Books, Inc., 1947).

²⁶ The notion of the "human scale" seems to stem from Le Corbusier's writings; see: *Concerning Town Planning* (London: The Architectural Press, 1946).

²⁷ Cf., Dahir's recently published bibliography on the neighbourhood: (New York: Russell Sage Foundation, 1948).

²⁸ Cf., Louis Wirth, "Urbanism as a Way of Life," *The American Journal of Sociology*, vol. XLIV, No. 1, July 1938.

pendent any more upon the happenstance of territorial proximity. Are we going to abandon, systematically, this tremendous advantage which actually supports all urban civilizations?

In recent years, moreover, the *mixed neighbourhood* has been proposed by housers and for housers as the philosophers' stone of social reorganization.²⁹ There have been practical considerations attached to this notion, such as the geographical equalization of urban taxation, the constructive influences of the "respectable" section of our society upon their less reliable brethren, the hope of escaping the deterioration of newly built-up sections into slums due to neglect and poverty. There has never been a penetrating discussion, however; not to mention research that might give reliable evidence to the claims for these ventures. The mixed neighbourhood appears like a cure-all to cope with problems of social inequality and social disorganization, problems which have to be met on an entirely different plane of discourse. We know that housing as well as city planning cannot—like a magic wand—be used as an all-out means of social reform.

The movement in favor of decentralization shapes itself into a dangerous ideology where it is raised by its adherents to a comprehensive principle of urban rehabilitation. As we climb over each other to gain access to the open spaces, we leave behind ourselves the ruin of urban blight, a wasteland of earlier and now self-defeated decentralization. Decentralization as such is, truly, not an answer to the problem posed by urban blight. It is, at best, an escape. Unfortunately, it can always be an escape

for a few only, and it can never be more than a temporary escape.

*Research, not a Single Formula, as a
Foundation for Planning*

It is not the intention of this paper, to argue against decentralization. It is claimed, however, that any discussion which favors either decentralization or concentration as values in themselves misses the point. If we can agree on the assumption that it is the task of housing, neighbourhood and city planning to provide for a physical setting which accommodates conveniently and efficiently our occupational as well as our private lives, and which, furthermore, connects these two spheres of our existence by a reasonable solution of the commuting problem; if this can be assumed to be the task of city planning, then we are confronted with a problem far too complex to invite the adherence to a magic formula like that of decentralization. It is doubtful that any other simple formula will provide a better guide to planning activities.³⁰ The best we can do, is to point at some of the factual information required to base our decisions on more solid ground than that of emotional or esthetic preferences.

1. We need information on the reasons which induce the population to move to the periphery of our large urban centers.³¹ We want to know whether they move there simply because that is where they find adequate housing facilities to suit their needs. It may well be that functional obsolescence—as well as physical obsolescence in the inner residential sections—influences the choice of a family home. More simply, it may be the fact that vacancies are more abundant in the

²⁹ The disadvantages of the "enormous one-class dormitory developments" are discussed by Catherine Bauer, "Good Neighbourhoods" in *Building The Future City, the Annals of the American Academy of Political and Social Science*, November 1945, pp. 104 ff.

³⁰ An open discussion of different possibilities of providing for an urban way of life was offered, for the first time, by

Percival Goodman and Paul Goodman, *Communitas, Means of Livelihood and Ways of Life* (The University of Chicago Press, 1947).

³¹ For an isolated and limited contribution, see, Richard Dewey, *Peripheral Expansion in Metropolitan Milwaukee*, Doctor's Dissertation (University of Wisconsin, 1947).

periphery which causes the settling down in this environment at the point of family formation. In short, there may not have been any choice. We know little if anything of the inconveniences encountered by long distances from the dormitory suburb to occupational, education and commercial establishments.³² We know nothing about the inertia prevailing with regard to housing attitudes. Once attracted by a vacancy, people may shape their ways of life in close adaptation to existing conditions, unwilling to move or to reconsider advantages of a different location.

2. There are no comparative studies which investigate the relative advantages of family living in either peripheral or central urban locations, in either mixed or relatively homogenous neighbourhoods.³³

3. There is absolutely no information available upon family housing histories which would make it possible for us to consider the advantages held by different parts of the city for different phases of the family-life cycle. If it were possible to establish typical patterns of movement between the different rings of urban ecology, if it were possible to find out where the young couples tend to drift when they establish a household, where they move when their children want to take advantage of specialized educational institutions, if we knew where the aging couple tends to move once the children have left the home, if information of this type were available, we should be able to consider the entire metropolis as a potential residence for the individual family and plan housing and neighbourhood conditions accordingly. Needless to say, both individual home ownership as well

as interfering status consideration are apt to limit complete flexibility in this respect.

4. We know sorely little about commuting³⁴ which should, perhaps, be taken into consideration as one of the most basic sources of information to guide city planning activities.

The disadvantages of close proximity of residences and places of work have been called to our attention. With present economic conditions in mind, it is most unsatisfactory if labor is entirely dependent upon employment in one plant only. Moreover, the adherents of the urban belt plan where industrial plants run parallel to residential developments have overlooked the occupational needs and the educational needs of the entire family unit. Only one gainfully employed member of the family can, under ordinary circumstances, be provided for with the advantage of a short walk on foot to his place of work.

Yet, there are a number of possible solutions with regard to the location of residential, industrial and commercial and entertainment areas in the city.³⁵ Should the population move into the rehabilitated center of the city and commute to the periphery for work? This possibility has not even been offered for discussion, although it provides a great number of advantages in this age of high labour turnover and change of occupation between father and son.

To visualize the entire range of possibilities of city planning, we have to consider the necessity of central rehabilitation. It may prove to be desirable to plan for decentralization, although the continuous increase in commuting distances makes this doubtful. It is a challenge, however, to base any such

³² An excellent contribution in this field is, however, available in Kate K. Liepman's *The Journey to Work*, *op. cit.*

³³ For an exception, see W. W. Jeane's, *Housing of Families of The American Federation of Full-Fashioned Hosiery Workers* (New York: Kastner and Stonorov, Architects, 1933);

Milton Blum and Beatrice Candee, *Family Behavior, Attitudes and Possessions* (New York: The John B. Pierce Foundation, January 1944).

³⁴ See Kate K. Liepman; also Gerald Breeze (both *op. cit.*).

³⁵ See Liepman, *op. cit.*, pp. 107-110.

decision upon the full knowledge of all facts involved. As long as we remain satisfied to follow the beckoning of the emotional plea for decentralization which promises to all of us—a promise which it can scarcely keep—the suburban paradise, as long as we are swayed by one-sided descriptions of a way of life, which is not more than a way to spend your

leisure time, that long we may lay ourselves open to the criticism of running away from our main task, that of urban rehabilitation. We escape into decentralization and follow the easy way of contemporary real estate development which builds on and on to a sprawling urban conglomeration, oblivious to the consequences.

Housing in France

By C. SIDNEY BERTHEIM*

Charles Abrams, author of *The Future of Housing and Revolution in Land*, has written the editor: "I find this article to be the only recent account of the housing situation in France. The author, with a good academic background, spent more than a year in France and made a thorough study of the field." On the basis of Mr. Abrams' recommendation we are publishing the article herewith.—Editor.

LE CORBUSIER has said that in France one of the major stumbling blocks in reconstruction is that the damage caused by the war was not extensive enough! And P. Frederix stated that there are several million French people in dire need of lodgings while the rest of the population would be happy to exchange their present living quarters for better ones. Certainly, a tragic dearth of housing exists in France as in many other countries. This article attempts to present the relevant factors which have made the housing situation in that country one of the acute problems facing the government.

In France the building of new dwellings has decreased steadily ever since about 1880 and during the past ten years ceased altogether. The steadily increasing tempo of France's industrialization brought in its wake the movement of large segments of the population from rural to urban areas. In 1851, 24.4% of the population was classified as urban population; this percentage increased to 34.8% up to 1881; to 44.2% up to 1911; and to 52.0% up to 1936. This has been a major factor in bringing housing conditions to their present low level. Paris, for example, excluding the suburbs, increased by twenty thousand people each year between 1881 and 1914. During

that period, the excess of total construction over total demolition was, on the average, only 440. The corresponding figure for other additions, consisting of remodeling and rebuilding partial demolition was 680 per year. From 1920 to 1930, the population in Paris increased annually by about 3,000 and the *excess figure* of total construction amounted to 300, and of *additions*, 450. Between 1931 and 1940 the population continued to increase annually by three to four thousand, but the excess figures decreased to 30 and 340, respectively. Beginning with 1940 no new construction and no additions took place, but every year an increasing number of dwellings became unfit for habitation. The same picture presented itself outside of Paris. From 1931 to 1938, the total yearly construction in France declined from 150,000 to 40,000, whereas in England it increased from 200,000 to 350,000.

As Le Corbusier says the war damage was not extensive enough. Too many houses were left standing that might better have been razed. So instead of starting from scratch and building towns as they should be built, France today is forced to content itself with piecemeal reconstruction to provide temporary housing immediately. Social and legal difficulties have developed. Officials of the Reconstruction Department find it increasingly difficult to persuade bombed-out home owners to rebuild their homes elsewhere. However, a great many people

*Statistician and Economist. The material on which this article is based was originally presented as a thesis for the Master of Social Science degree at the New School of Social Research, New York City.

whose homes were lost have been provided with a place in which to live.

Many conflicting figures have been published in France on the number of buildings partially or totally destroyed by the war and the occupation. It is often left to the reader to judge what is meant. The same lack of exact figures exists with regard to the number of houses which have been repaired after liberation. The Reconstruction Department of the French government has issued several pamphlets, but there is a glaring inconsistency in many of the tabulations available to date. During World War II, figures published show that upon liberation 547,450 houses had been destroyed, 110,970 had been seriously damaged and 1,403,930 slightly damaged. These figures represent about twenty percent of the estimated ten million dwellings in existence in 1938. A total of 700,000 families were homeless, while hundreds of thousands of others, who had no roof over their heads, lived in substandard dwellings.

The quality of the housing in France is far below that of some neighboring countries. The housing density in certain districts of Paris is said to be the highest in the world (445 persons to one square acre). The lack of governmental regulations aggravated the tragic consequences. The absence of foresight or planning at the time overcrowding first started is most evident in those districts where the concentration of population is greatest. Parks and playgrounds would have improved the situation, but no steps were taken to build them. In many suburban centers which house low-income workers primarily, factories and homes are crowded together. A study made by *General Statistics* during 1926

revealed that in twenty-seven towns having a total population of 12 million persons about 40% lived in inadequate and 10% in overcrowded housing.¹ The corresponding figures for Paris were 42% and 8.7% respectively. A large number of cities, including Lyon and Le Havre, had more than 50% of the population inadequately housed. The rate of overcrowding in smaller and larger towns varied but little, amounting to 12.6% in towns with a population from between 5,000 and 10,000 and to 7.5% in towns with over 100,000.

In France only a very limited number of people enjoy the comfort and convenience of central heating, flush toilet and bathroom, not to mention a bathroom with shower. In thirty cities, each with a population of more than 30,000, 23% of the population had no running water in their dwellings; 50% had no running water in toilets and 88% had no bathroom. In a number of the larger towns, more than 75% has no running water in their toilets. In Paris, out of 85,000 apartments, 7,000 had no inside toilet. In 1926, in 858 towns (each with a population of more than 5,000 and totalling 15.8 million people) 26% of the dwellings had been labelled substandard. In towns with a population of between 10,000 and 15,000 the figure was 33%. Before outbreak of World War II, 500,000 urban dwellings were considered slums and 1,500,000 in the process of becoming so.

In general, the size of apartments in France is smaller than in many other countries. A study made by the League of Nations in 1935-36 revealed that the majority of apartments in France contained between two and three rooms; this compared with four and a half rooms in the United States. An early census (1911) showed that, in towns of more than 10,000 population, 21% of the

¹ "Inadequate" housing is defined as more than one person occupying one room, "overcrowded" housing as more than two persons occupying one room; the kitchen is always counted as a room.

apartments had one room (Paris, 25%), 29%, two rooms; 23%, three rooms; 13%, four rooms; 5%, five rooms; and 9% more than five rooms. Overcrowding occurred most frequently in small apartments. In 1930, 40% of one-room apartments were overcrowded in the Paris region;² 47.3% of two-room, 32.2% of three-room, 18.9% of four-room, 10.5% of five-room and 6.5% of six-room apartments.

Beginning with the twentieth century, some steps were taken to increase the income of the poorest people in France. Special family allocations were inaugurated in 1914, and have been increased several times since then. Social security measures, such as unemployment insurance and old age payments, were instituted in France soon after the first world war. But all this has not made it possible for them to secure better living quarters.

Unemployment, a large number of strikes and the war years worsened conditions for the lowest income groups. They were afraid to increase their budget allowance for rent because the sudden loss of a job would have forced them to move at once into cheaper quarters. Especially unhappy and precarious is the housing situation of families with many children. The larger the family the lower is the percentage of income available for rent. An inquiry made in Paris during 1911 showed that of 1,000 households with more than seven persons 26.9% were overcrowded, whereas the percentage amounted to only 9.7% for households with three persons. In addition, many large families live in unhygienic dwellings. As long ago as 1885 Picot³ said that large families, in spite of having some means, were compelled to indulge in subterfuge in

order to secure a place in which to live. Owners of buildings simply refused to rent to large families. A husband, wife and two children, therefore, would move into an apartment. Then suddenly, a week later, another child would appear, and then another the week after that, until the entire family was collected under one roof. A law was passed, in February 1941, providing for a penalty against landlords who refused to rent their apartments to large families. However, the prospective tenant had to prove that this was the actual reason for the refusal which, naturally, was difficult.

An adequate wage or income does not necessarily guarantee that the family concerned will live in decent quarters. Unfortunately, the majority of low- and middle-income homes in France do not have the basic necessities which make clean and hygienic living possible. It is an equally unfortunate fact that many French people have never learned to value the comfort of living in a modern apartment. This is partially because many have moved from the country where sanitary installations etc., were more or less unknown, or have come from other countries where the standard of living was even lower than what they enjoy in France. Many others prefer spending their money on fancy food or movies, rather than on housing.

At present, the amount set aside for rent is very inadequate. A table published in 1939 in the *Revue Economique Politique* shows that during 1907 a low-income family spent 15.8% of the total living expenses for lodging (including cost of maintenance of the dwelling and furniture). In 1937 only 11.1% (for lodging alone 6.6%) was spent. After 1937 the trend towards paying a smaller percentage of total expenses for rent

² E. Videcoq, *Les Aspects Permanents de la Crise de Logement dans La Région Parisienne* (Paris: Les Editions Internationales, 1932).

³ G. Picot, *Un Devoir Social et Les Logements d'Ouvrier*, Thesis, Paris 1885.

continued. In France it seems to be more important that the family eats and drinks well than that it lives in really comfortable quarters. A higher rent must be paid each month, but the cost of a fine dinner has to be paid but once! It is the budget allowance for rent which is generally reduced first.

To change this and to educate the individual will take time. The government must do the job; this is an accepted fact in France. Private interests alone are not in a position to cope with a task of such magnitude. As far back as 1850 the French government recognized the need for better housing. However, in the intervening years not much has been accomplished to better the situation. The first law concerning sanitation was passed in 1902. Several changes were made through the years and in 1937 most of the regulations in effect locally were combined into a national one. The application, however, of this national regulation is only theoretical. For example, buildings with "stand-up" toilets continued to be erected on landings, to be used by all the people living on that floor; kitchens are without running water, and rooms are dark and airless.

In England, between 1919 and 1939, the construction of 1,385,000 dwelling units for low-income groups received subsidies from the government. The figure for France was 200,000 for the same period. As recently as 1937, in an effort to promote greater building activity, the French government began to make cheap credits available to builders and to give them special tax reduction. However, it was too late and too little.

Some factors which have caused the steady decline in construction will now be discussed. Then some recommendations will be made for solving the difficulties which the government and private business face in the housing program.

One major factor which brought about the steady decline was the unbalance which existed for many years between the cost of maintaining old structures (or building new ones) and the income derived from it. This situation was aggravated by a law passed in 1914 limiting the amount permitted to be charged for rent. Real estate owners were called on to pay ever increasing costs of labor, materials, interest charges, taxes, etc., without being able to charge much higher rents. A society of architects in France has stated that 124-129 francs was the price for one square foot of a building. Six hundred forty-six square feet were given as the area required for a family with three or four children. The total cost, therefore, would amount to about 96,000 francs. Working on the assumption that the owner should receive a rental which approximates 7% on his investment in order to make a profit of about 4%, the rent should amount to 6,720 francs. The average rent actually paid by middle-income families before World War II amounted to only 2,000 to 2,500 francs a year.⁴

The overall increase in construction costs resulted primarily from the higher prices of raw material and from the increased hourly wages. In 1911, a plumber got 0.95 francs an hour; in 1921, 3.50; in 1931, 6.50; and, in 1941, 12.02 francs (no information was given in the source material as to the actual purchasing power of the hourly wages in view of the devaluation of the franc, but the increase is considerable). These figures do not include the additional cost or payments resulting from the institution of paid vacations in the construction industry (5% increase in the wage costs); of obligatory social insurance (3.5% in 1930); of family allocations (9% in 1941);

⁴P. Isaac, *Le Probleme de l'Habitation Urbaine en France* (Paris: 1943).

and of the accident insurance which has a high rate for this industry (5½% on the average). It is said in France that manual labor accounts for about 50% of total construction costs; in addition there is the added manual labor cost involved in securing the raw materials, which brings the total labor costs to about 60% to 70% of the total construction costs.

The steady increase in the cost of land due to the continued influx of people into towns also limited building activities. High interest rates had to be paid for the construction credits. In 1913 the rate stood at 4.65%; in 1921 at 8.25%; in 1926 at 10.5%; between 1930 and 1939 the interest rate fluctuated between 6.25% and 8%. Lower rates charged in 1940-41 had no influence on the market because of the war and the resulting scarcity of building material.

In addition, banks continued to shorten the amortization periods and also the amounts of the credits granted. Due to all this, the income derived from new construction decreased. This in turn lowered the value of the real estate which made money lenders even more cautious about taking such risks. The general instability in the economic, political, and social fields increased this tendency. Before World War I about 60% of the value of real estate property was advanced as a loan by the Land Mortgage Bank; after World War I, only between 33% and 50% was advanced. Monetary instability made it almost impossible for investors to borrow money. Money lenders refused to grant any but short-term loans, and mortgage banks were not able to place bonds with fixed yearly interest; there was no market for them. Shares rather than bonds were bought because of fear of further devaluation of the franc.

Long-term credits are essential in the

real estate market. However, there is no special agency in France to deal with matters pertaining to new construction and the granting of such necessary long-term credits. For the time being, the real estate owner seeking funds must go either to a lawyer, an insurance company, a real estate loan company, or to the Credit Foncier.

The advantage of dealing with a lawyer is that he has knowledge, generally, of both the lender and the borrower and the entire procedure is a much less formal one than would be the case at a bank. The potential lender receives, so to speak, not only a mortgage guarantee but also a moral one that the borrower is a good risk. Such loans have been given frequently in France, but they are given for a period of from five to ten years only, which is too short a time for complete amortization.

Forty percent of the reserves of insurance companies may be given as long-term credits; a credit is limited up to 50% of the value of the property. However, it has been found that insurance companies generally have never furnished loans equal to 40% of their reserves, but considerably less.

The most important of all loan agencies is the Credit Foncier, which issues so called "Obligations Foncières." It grants long-term credits which must be amortized yearly. The amortization period may extend from ten to seventy-five years, but only a few extend for more than thirty years. The interest charges cannot be more than 0.6% higher than the interest to be paid to the owner of the bonds. Again, the credit is limited to 50% of the value of the building. The requirement that the mortgage must be given on a completed building limits to a certain extent the advantages of borrowing from the Credit Foncier, especially for persons who wish to enter the building

field. A regular credit of 100,000 francs, given for a period of twenty years at 5.5% interest, requires a total of 110,000 francs in interest charges and 100,000 francs of repayment. A credit granted by the Credit Foncier requires twenty yearly payments amounting to 8,306 francs or a total of 166,120 francs, a saving therefore, of 44,000 francs.

People in the housing field recognized the need for creating a credit institution which would furnish short-term credits to cover the period during which a new building is being constructed. A special agency was created furnishing three-year loans which could be transferred to the Credit Foncier at the end of the period. The importance of all these credit institutions decreased during the last twenty years due to the general economic instability of the country. Many builders were compelled, therefore, to sell single apartments or entire floors while a building was being constructed in order to secure sufficient funds to complete the job. This practice started around 1918 and it is to be expected that this plan will be employed in the future.

To increase construction activities, beginning with January 1938, "interest bonuses" on construction credits were arranged for. Under this plan the government paid the interest up to 4%, but not more than half the charges, for a period of not more than fifteen years. Due to the outbreak of the war there was little opportunity for builders to make use of this helpful plan; during the first year the number of applications for interest bonuses increased from 50 in January to 1,100 in December. The governmental budget for this first year was set at 40 million francs. The writer was unable to ascertain how much of this was actually spent. Cash subsidies were given only for the construction of H.B.M. (this abbreviation is always used for

Habitation Bon Marche—low-cost housing) dwellings intended for large families. It should not be difficult to calculate the amount which the government could furnish for individual subsidies. A proposal made during 1939 was that 4.5% of the total value of a building should be given as a yearly subsidy for twelve years. This would have enabled the builder to pay his yearly amortization.

Two proposals were made to help low-income groups especially: (1) construction of low-cost housing on which the deficit was to be borne by the taxpayer, and (2) the raising of wages or income to cover higher rents. As far back as the 1850's industrialists recognized that the increasing tempo of industrialization would make the problem more acute each year and that they would have to do something because the government had no housing program.

Some industrialists erected housing for their workers. In 1931, a national inquiry was undertaken in factories where more than 200 people were employed to discover how many workers lived in company-built or -owned houses and the advantages or disadvantages of such housing projects. Only a few industries, principally mining and railway companies, had constructed homes for their workers. Railway companies housed 14% (69,000) of the total number employed, and mining companies, 43% (148,964). In all industries only about 450,000 employees lived in company housing, a very small number. The main disadvantage of such type of living was said to be that the worker did not feel free from supervision after leaving his place of employment. Termination of employment compelled the worker to move. The main advantage, however, was the availability of more modern conveniences than the workers might otherwise have had. The disadvantages of living in com-

pany housing far out-weighed the advantages.

Another method which employers used to secure housing for their workers was through participation in cooperatives or associations engaged in building low-cost housing. A number of these are known as "Societes d'H.B.M." Of 500 million francs spent up to 1930 by industries to provide housing for their employees, 66% were given to various H.B.M. companies. About 27% was advanced by various industries directly to their employees to assist them in the purchase of their own homes. In housing arranged through H.B.M. companies people are not forced to move when employment with a particular company is terminated. It was preferable, therefore, that such housing be undertaken in large communities where greater job possibilities existed. Industry's assistance in low-cost housing was available only in so-called normal times, but much more needs to be done to accomplish something in abnormal times. It was proposed that the Secretary of Labor be given the right to compel newly-established industries in areas where inadequate housing exists to make payments to workers' cooperatives or H.B.M. companies. The same regulation was to apply also to industries which expanded their facilities. In the event that such laws failed to pass the legislature, it was proposed that yearly payments be imposed on all industries of a certain size, based on the number of employees, or representing 5% of a company's reserves, regardless of size. Up to the present, no action has been taken by the government.

In 1894, for the first time the government in France passed a law to help provide housing for low-income groups. The law established benefits for the H.B.M. companies then coming into existence. These benefits were to be

given only to those companies whose sole purpose was to provide decent and hygienic housing at low prices for low-income groups. Government loans at low interest rates made the construction of such dwellings possible and relatively good results were achieved. Private initiative was not hampered by this law because the government stepped in only where no private funds were available for such construction and, therefore, it was fortunate that the law of 1894 was still in force.

Up to the outbreak of World War II, about 140,000 dwellings were constructed by H.B.M. companies. The law of 1894 stated that tenants should be selected among less fortunate people and especially among workers who live principally on their wages. This provision was not precise enough and left the decision regarding the tenant to be selected more or less to the discretion of the officers of the companies. In many instances, tenants of H.B.M. dwellings were able to pay higher rents than those asked of them and others, who were able to pay but very low rents, were not given apartments.

Large families received almost no benefit from this law. Therefore, in 1922 a law was passed creating special subventions which were to be given for the construction of dwellings, two-thirds of which were to be allocated to families with four or more children. In addition, local authorities were asked to contribute towards the rent payments of such families to whom also priority in renting was given. However, not much benefit came from this legislation due to the unfair administration of it. The small number of large families living in the few large apartments available in H.B.M. dwellings could not be forced to move into smaller apartments when their children grew up and moved out of the household. In

addition, many large families were not able to pay the low rents charged in H.B.M. dwellings. An inquiry made by a committee of H.B.M. representatives in the Marseille region in 1939 revealed that, out of 1930 dwellings, 1179 or 61% could have housed larger families but only 541 (46% of the larger apartments and 28% of the total number) were actually occupied by such families.

H.B.M. dwellings were constructed in certain areas even though the need for them was not great, while in other sections where the need was almost limitless, no H.B.M. construction took place. In general, the quality of H.B.M. dwellings was higher than that of other low-cost housing projects. However, there were a number of disadvantages such as flimsy construction, dampness, lack of insulation against noise and cold, etc. It is a sad commentary on housing in France that some of the H.B.M. dwellings have come to be known as "perfect slums," despite their superiority over other low-cost housing projects. The existence of H. B.M. (low-cost housing) has given the impression that a great deal had been accomplished. Actually, however, the housing situation was not bettered to any great degree. Only two percent of urban dwellings were constructed by H.B.M. companies. Late in the 1930's municipalities received governmental subventions to stimulate building during that period of general unemployment.

It is always desirable for each family to have its own home. A law passed in 1908 was supposed to provide assistance for this, but not much was accomplished. In 1928 the assistance permitted was increased and by 1940, with the help of about 5 billion francs of credits and 600 million francs of subventions, 130,000 houses were built. The same low-income groups which were to benefit from H.B.M. housing were supposed to benefit from

these two laws, but actually the majority of the new houses went to people in the middle-income groups. Economic uncertainty made it impossible for low-income workers to purchase or rent these houses. In addition, construction costs required that the buyer have some funds of his own, as the credits provided were not increased. With regard to the quality of the houses the same could be repeated as was said of the H.B.M. dwellings.

In some instances successful attempts were made by groups of workers to build houses for themselves. All the difficulties involved in such a major undertaking, however, make it unlikely that much can be expected from this kind of activity in the future. It is interesting to note that the total cost of building a house, undertaken collectively by the workers themselves, amounted to less than the usual cost of buying a house or having one built to order.

In any discussion of housing the maintenance and improvement of existing structures must be taken into consideration. It is generally conceded by French housing experts that many dwellings could be brought up to decent minimum standards without the expenditures of a great deal of money. It has been stated that for the same amount as required for construction of 1,000 new adequate dwellings 10,000 existing ones could be made habitable. In addition, the installation of improvements could be made much more rapidly than the building of new houses. However, proper maintenance and improvements depend to a great extent on the existing level. Ever since 1914 legislation with regard to rents has resulted in diminishing the financial resources of real estate owners. Some rent increases were incorporated in laws passed during 1926, 1929, 1937, 1941 and 1943, but at the present time the net increase in rents allowed amounts to

not more than between 4% and 5% of the 1914 level.⁵ Due to these laws two markets developed, one for buildings constructed prior to 1914 and one for more recently-erected buildings. Other disadvantages of such legislation do not need special enumeration.

The increase of the administration and maintenance charges from 1913 to 1942 are as follows. In 1913 administrative charges and taxes accounted for 21% of the total receipts; maintenance and repairs for 10%. Net incomes, therefore, amounted to 69% of the total receipts. In 1942, taxes were 6.5 times as high and administrative charges 6 times as high. Maintenance and repair costs have increased much more—to an even greater extent than has construction costs. They are 13 times as high in 1942 as in 1913. On the average, total receipts were about 4 times as high. On account of all these increases, the net income in 1942 amounted to only 35% of the total receipts. These figures, of course, changed considerably after 1942, but the writer was unable to secure data in France regarding further increases. It is obvious that real estate owners, in the light of their decreasing income, made as few repairs as possible; expenditures for maintenance were cut down. Consequences of lack of care were and still are apparent everywhere. It was only the fear that the value of their property might reach the vanishing point that forced some owners to make even minimum repairs.

The receipts of the real estate owners decreased for a variety of reasons. During the two world wars, for example, people unable to pay their rent due to the war could secure a decrease of 75% in their rent. All mobilized people benefited from this reduction. It was

only in those instances where the owner could prove that full rent, or more than 25%, could be paid, that a greater percentage of the rent had to be paid. An unemployed person could not be forced to pay rent. Instead, the government paid a small portion of the rent due.

Another reason for the decrease in receipts was that the facades of buildings in large towns were required to be cleaned or painted every ten years. This increased the maintenance costs considerably as the price for this work often amounted to two or three times the annual income from rents. Also there were fees to be paid in securing authorization for alterations.

In 1937 a law was passed stating that a real estate owner, the majority of whose tenants agreed that "special" improvements be undertaken, could raise the rents on condition that these improvements were actually of benefit to the tenants. The increased rentals could then make it possible to amortize the cost. The landlord was not permitted to amortize the cost involved in a period of less than ten years and the increase of the rents permitted was to be less than 10% of the previous rentals. The ten-year period was reduced later to five years, and the rent increase was raised to less than 20%. Improvements which were compulsory to maintain a building at minimum standard did not give the right to increase rents. Almost nothing was accomplished in this way because most tenants were not willing to accept the terms.

It has been said that the average Frenchman does not care enough about having an adequate place in which to live. It is the consensus of many French social workers that a procedure must be created which would make it possible to force tenants to adopt more hygienic habits. This, of course, would interfere

⁵ *New York Times* July 30, 1947, reports a 10% rent increase in France, effective only to January 1, 1948.

to some degree with the "liberte" of the individual. The owner of a building can be fined for not providing the necessary installations for hygienic living. There is, however, no law which can force the tenant to live hygienically where such installations do exist. It is the opinion of the writer that, if the necessary laws were properly written, there would be no abridgement of the "liberte" so dear to the French heart. Any supervision would work to his own favor and the advantages of it should be always ascribed to the people involved. The only people who might object to such a law would be those who refuse to accept modern standards of living!

In Lyon it was attempted, successfully, to improve sanitary conditions by slightly reducing the rents of those tenants who kept their apartment clean and in good order. This procedure should be duplicated elsewhere. In homes belonging to cooperative settlements and in buildings constructed by organizations for their members, supervision would not be difficult. In addition, there is a major task to be done in educating low- and middle-income groups on budgeting their income.

What measures should now be taken to stimulate new construction? Costs must be reduced. To lower labor costs is almost impossible and is certainly not to be recommended. The advantages gained by the workers after World War I, such as paid vacations, the forty-hour week, etc., are social gains which should not be discarded. Whether technical progress will make it possible to reduce the number of workers remains to be seen. Some reduction in the hourly wage might be brought about in guaranteeing an annual wage. The cost of materials is based, to a large extent, on the cost of manual labor. It is hoped that technological advances will lower

the cost of securing raw materials. Tariff rates for transportation of materials must be stabilized and cartels be prevented from fixing prices at too high a level.

Some French writers have suggested that municipalities establish their own factories for the manufacture of building materials or buy the entire output of one or more factories, possibly located nearby, to avoid transportation charges and to make needed supervision less expensive.

Plenty of wood is available, but only 1% of all buildings are built of wood. Standardization of parts used in construction has effected great savings in many countries. But France is far behind in this field. To reach the point of truly efficient production would require expensive installations of necessary machinery. Here again, it should be the obligation of the French authorities to furnish credits to assist manufacturers in achieving standardization.

In order to make land available at a reasonable price, land speculation must be stopped. The imposition of higher taxes on land where buildings could be built but are not would help to put an end to some speculation, particularly if the surtax were set sufficiently high. Another suggestion is that a tax be imposed on the basis of higher assessed values. Generally speaking, higher value is not the consequence of what the owner has done to improve his property but the growth of population and consequent construction of public works which have been built, such as streets, schools, etc. Such considerations justify the imposition of a higher tax on the increased value. In order to assist town planning the level of taxation of land must be studied carefully. In addition, the government or municipalities should also institute measures which would enlarge the land market. Vacant land in many towns

could be made useful by slight changes in the adjacent areas. Often, municipalities own land but do not realize that it is their obligation to make it available for construction purposes.

Tax reduction which would benefit the builders of new dwellings is also essential. This was recognized early in the 1920's and a small reduction was granted; houses built during a certain period were granted an exemption for 15 years. Tax on alterations also was lowered or entirely dispensed with in the middle of the 1930's. This tax on alterations was imposed, for example, when a builder purchased a slum which he intended to demolish to make way for a new building. All these tax reductions were no longer granted after January 1, 1942.

A company in a position to issue mortgage bonds should check up on the guarantee available, prepare the necessary papers, undertake the mortgage registration, cash in the interest payments and follow up any necessary legal procedure. If such a company were created, everything would be handled by it and the reluctant money lender would be freed from the burden of detail. In addition, this company would be in a position to furnish better guarantees by apportioning to various projects the money given by an individual.

In order to improve the credit situation, it should be seen to it that, in the future, communities do not apply for credits at the Credit Foncier. The available funds of these institutions should be left for construction purposes. Insurance companies should invest more of their reserves in this field. Loans limited up to now to 50% of the total value of the building should be permitted to be increased to a higher figure. In assessing the value of a building too many unessential factors are considered; this means that 50% of that valuation

represents actually only about 30% to 40% of the true value. Therefore, requirements concerning the valuation should be lowered. Up to now, real estate companies have used about 10% of the loans for investment given them to pay fees, taxes and other charges. In addition, the red tape involved in securing a credit is so extensive that the percentage of loans actually given after they had been approved is small. The entire procedure needs overhauling, especially the matter of unnecessary delays in taking action. All this should be done in "normal" times.

In "abnormal" times, as today, it is of the utmost importance that the government encourage the investment of more capital in the real estate market. In addition, it should furnish subsidies for construction, pay part of the interest charges or advance the needed funds at much lower interest rates than the current ones. Subsidies and/or interest bonuses, however, are not all that is required. Private investors willing to loan at low interest rates are also needed. Otherwise the burden on the taxpayer would become too great. To meet the needs during the present period of unstable economic and political conditions it is suggested that a "Caisse Nationale du Credit Immobilier" (a national real estate bank) be established. This bank should have the same functions as the Credit Foncier, but its loans would be limited to construction, demolition and renovation projects.

With regard to company-owned housing it is recommended that regulations be established, compelling factories to provide for their workers decent housing where none exist; the workers to be treated as tenants—not as "employees in company owned housing;" and that no tenant be evicted when his job is terminated. Beginning late in the 1930's, the

government granted industries which had helped their workers to secure low-cost housing a tax reduction of up to 20% on their yearly surplus. Such benefits, however, were limited to short periods.

Some legal changes in the H.B.M. system are needed. Rules for selection of tenants should be revised to provide for necessary adjustments in the size of apartment available as the size of the family decreases or increases. Low-cost housing must be started as quickly as possible. Private real estate people must be encouraged to initiate such housing, but they cannot be expected to shoulder the entire task.

For many housing experts in France granting of rent allocations wherever necessary would be the best solution of the rent problem. Rent allocation has been studied in France intensively and in 1938 an article was written by P. Kula.⁶ It was stated there that an increase in the existing *family* allocation would not necessarily be used to pay a higher rent for better living quarters. *Rent* allocations would be the solution. Such rent allocations would benefit, for the most part, those families which now receive family allocations. Rent allocation legislation should provide that after a member of a family begins to earn his living he should be compelled to contribute towards the rent—which would automatically decrease the amount of rent allocation; and in the event of unemployment the rent allocation should be continued. This is not the case with the family allocation. After establishing rent allocations, private real estate companies would be willing to undertake low-cost housing because it would insure them a return on their investment.

The funds needed for it would come principally from those enterprises which

employ manual labor or white collar workers. The greater burden which would be placed on industry could be shouldered partially by them and partially by the consumer. The amount of rent allocation could be calculated as follows. A "normal" rental figure should be set, depending on the size of the family and the accommodations required. From this normal rent should be deducted the amount the tenant can afford to pay on the basis of his income, and the rent allocation would make up the rest. It was also suggested that rent allocations be given only to people who use ten percent or more of their wages for rent and only after proof that the dwelling was not overcrowded and did meet hygienic requirements. With another suggestion the writer does not agree: namely, that rent allocations should be given only to those families where the mother does not go out to work.

The level of increases in rents should be based on the type of accommodations; for de luxe apartments, greater yearly increases could be arranged and any rent ceilings removed much sooner than on less expensive apartments. It is recommended that a special tax be imposed on the owner of the better or more expensive buildings. The amount collected should be used to subsidize the building of low-cost housing or to assist in bringing about improvements in existing structures. Rent increases will stop the steadily declining value of real estate; higher rents would help to bring about a certain surplus for the investor. This stabilized or even raised value would in turn increase the tax returns of property owners. The amount thus collected by the government should be used also for repair and improvements. Up to the middle of 1947 the French government has made no public statement regarding its future rent policy, and

⁶ P. Kula, "Les Allocations Logement," *Caisse de Compensation du Batiment et Des Travaux Publics* (Paris: 1938).

all permanent remedial steps have been postponed until the latter part of 1947.¹

With regard to the limited rent increases, if all the tenants agreed and some improvements were undertaken, provision should be made for local authorities to authorize real estate owners to increase rents on the basis of actual improvements made on their property.

For the time being, the financial burden of undertaking extensive renovations to make dwellings habitable again cannot be carried by the owner alone. In such instances the same kind of governmental assistance will have to be given to owners of existing buildings as that which would be given to those who undertake new construction. Some such laws were passed, beginning with 1938 and they were in effect until October 31, 1942. During that period, 17,000 credits amounting to 1.1 billion francs had been authorized, but only 265 million were actually paid out. Frequent and more careful inspection by health inspectors would help to bring buildings up to minimum standard. But no owner can be called on to make such repairs or improvements as long as he is financially unable to do so. A decrease in the cost of repairs, therefore, would also expedite renovation. The writer is of the opinion that extensive renovation of existing structures is one way in which to ease the drastic housing shortage in France.

The need for demolishing slums and blighted areas has long been recognized in France, but almost nothing has been accomplished in this direction. The primary reason for this inaction is that no buildings existed to rehouse the people living in the slums. The financial problems involved in slum demolition offered more difficulties than those to be met in new construction or the repair of old

buildings. While it is true that a few slums were torn down, their total number was constantly on the increase. An "automatic" slum clearance, predicted by French authorities early in the 1900's, did not occur. A very old law, dating back almost a hundred years, gave the right to expropriate a house in order to tear it down, but the law was seldom invoked. Very little in the way of slum clearance had been accomplished by private business. Therefore, close cooperation between private owners and governmental authorities is suggested as the best way of effecting slum clearance.

It is the responsibility of the government to adjust rent, taxes, interest charges, etc., so that a private real estate owner may look for an adequate return on his investment. Low wages and salaries must be raised to permit people in the lower income groups to pay higher rent, as already shown above. It is also a primary responsibility of the government to see to it that scarce building materials are properly distributed. Exact statistics are prerequisite of any governmental action. Almost nothing is available up to now. In some municipalities inquiries were made once every fifteen years. Estimates have been made of the number of slums which ought to be torn down. However, no definite figure has ever appeared giving the number of new dwellings required nor the number of dwellings which might through renovation be brought up to proper standard. It has not been possible to check the accuracy of the few statistical data available because many of the organizations which provided the data no longer exist.

Rural housing in France, generally, is much inferior to urban housing. For more than one hundred years, the farmer's income has been so small that he was unable to spend any money on

¹ *New York Times*, March 27, 1947.

improving or maintaining his property. The extent of the work involved and scarcity of labor available prevents the farmer from maintaining his house in good condition and, generally speaking, he does not have as much knowledge regarding modern sanitary conveniences as does the urban dweller. Many of the methods to be employed for the betterment of urban housing can be equally well applied to rural housing.

The basis requirements for better housing in France can be stated as these: (1) tenants must be educated with regard to hygienic living and budget planning; (2) the balance between construction, maintenance and repair costs, and income from real estate must be adjusted; (3) a minimum wage standard should be

adopted; (4) legislation must be adopted for the inspection, maintenance, renovation and new construction of homes; (5) the government must join forces with private interests to bring about maximum activity in the renovation of the existing and the building of new dwellings; and (6) statistics must be gathered and made available for research and analysis so that planners, the government authorities and sociologists can work and act intelligently.

The task of providing adequate dwellings for every French family is gargantuan. It can, however, be realized if the government and private business cooperate. *Liberte, Egalite, Fraternite* will take on new and deeper meaning when the goal of decent homes for all has been achieved.

The Development of Soil Conservation Programmes in Australia

By KEITH O. CAMPBELL*

WHILE a soil erosion problem has existed for many years in the older settled areas of the continent of Australia, it has received specific attention from the Australian Government only within the last decade. To some considerable extent this increased interest, which first became evident about the mid-thirties, must be attributed to the propaganda which accompanied the attack by the United States Government on soil erosion as part of the New Deal programme beginning in 1933. Another factor, no doubt, was the realization, as a result of land settlement experience in the 'twenties, that the agricultural frontier had been reached and that future productivity depended on maintaining or improving the productive capacity of existing settled areas. Even today the work of the soil conservation services in the several states has not progressed much beyond the stage of general extension work. This situation is to be explained largely in terms of the exigencies of the 1939-45 war which considerably curtailed the speed with which the work progressed. Despite the immaturity of the programmes, some important political problems in the conservation field have become evident in the short period under review. In this paper an attempt is made to describe briefly the present position as regards soil conservation in the states and in the federal sphere, and to set down and discuss some of the more important of the emergent issues.

The Erosion Problem

Since soil conservation policy, like general agricultural policy, is a matter of state rather than federal action in Australia, it is very difficult to get an authoritative picture of the extent of erosion damage for the Commonwealth as a whole. The most recent appraisal of the situation was that made by the Rural Reconstruction Commission in 1944. In their *Third Report*, the Commission, after observing that "extensively publicized movements are not invariably based on sound premises," concluded that the magnitude of the problem was considerable, and that official statements were not exaggerated. They claimed that (a) soil erosion was a very real menace to the future of large sections of the country, (b) if a national calamity was to be averted, drastic action was necessary within the next decade, and (c) failing better methods of land utilisation, the menace would spread to even wider areas than were at present affected.¹ Like the United States, Australia has really two distinct erosion problems: (1) the problem of wind erosion (closely correlated with overgrazing) in the more arid sections of the continent which are almost exclusively pastoral areas; and (2) the problem of sheet and gully erosion in the better rainfall areas. Due to the limited area of cultivable land in the continent, the erosion problem in the existing agricultural areas is therefore of more serious import. The

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number of the points discussed.

¹ Commonwealth of Australia, *Rural Reconstruction Commission, Third Report*, (June 1944), p. 46.

report of the Rural Reconstruction Commission, cited above, gives some detailed estimates of the seriousness of erosion in each of the states.

In New South Wales where a detailed survey of the entire state has been carried out by the State Soil Conservation Service, it is reported that, in the Eastern and Central Divisions, some 50 per cent (or approximately 60 million acres of land), for the most part of high fertility and in moderate-to-good rainfall areas, is suffering actively from erosion.² On about half of these actively eroding lands, erosion is in the early stages, and preventive, rather than remedial action is urgently required. The bulk of the 50 per cent of the land showing no appreciable erosion consists of timber lands, either state forests or lands of such low fertility that it remains still as timbered Crown land.³ In the Western Division (the remaining two-fifths of the state) which consists of low rainfall country (receiving less than 10 inches per annum), and used for pastoral purposes, it is estimated that 70 per cent of the land is affected by wind erosion and that a substantial portion of that area is beyond economic reclamation.⁴

In a questionnaire survey in 1941, 45 shire councils, representing over half of the area of Victoria, reported serious erosion within their boundaries and 119 shire councils, representing 81,175 square miles, reported erosion of varying degree.⁵

No quantitative estimates of erosion damage exist in respect of South Australia, Tasmania, Western Australia and Queensland, although water erosion would seem to have taken less toll in the latter three states than in some of the others. In South Australia and Western

Australia, serious losses from wind erosion in some pastoral areas have been reported.

State Action in Respect of Soil Conservation

The Australian Federal Government has no specific powers in the field of soil conservation. The principal developments in this area have accordingly taken place within the six states of the Commonwealth. All the states except Tasmania had initiated soil conservation programmes of one kind or another prior to 1942, when the Commonwealth Government first sought amendment of the constitution in order to extend its powers over conservation of natural resources. It is proposed, therefore, to discuss first the developments in the various states. With this background, it will be possible, subsequently, to examine recent federal action with better perspective.

Before so doing, there is one early move of some significance in the federal sphere which should be noted. In 1935, the Australian Agricultural Council was set up as a meeting ground for discussion of mutual agricultural problems between the states, and between the federal government and the states. It is a purely consultative body and has no statutory power. It comprises the Ministers of Agriculture of the several states together with the federal Minister for Commerce and Agriculture as chairman, and is assisted by a technical advisory committee known as the Standing Committee on Agriculture. Though the principal discussions in the early years of its existence centered around marketing issues, the Council did occasionally give some attention to soil conservation issues. At a meeting held in August 1936, it agreed to recommend to state governments that a Soil Conservation Committee should be

² The Eastern and Central Divisions of N.S.W. contain approximately three-fifths of the state. Virtually the whole of the agriculture and 90 per cent of the livestock are situated in these two Divisions.

³ Rural Reconstruction Commission, *op. cit.*, p. 52.

⁴ *Ibid.*, p. 56.

⁵ *Ibid.*, p. 53.

established in each state. New South Wales already had a Committee at that time, but subsequent action taken in Victoria, South Australia, and Western Australia is traceable, at least in part, to this Agricultural Council recommendation.

New South Wales. In 1933 the State Cabinet decided to form a Soil Erosion Committee "to coordinate action relative to erosion mitigation and catchment area protection." Field officers of the Department of Agriculture had previously given attention to erosion matters in the course of their normal research and extension duties, but "it was decided that the position warranted more definite and continuous attention."⁶ The Erosion Committee was representative of the Departments of Lands and Agriculture and the Water Conservation and Irrigation, and Forestry Commissions. It surveyed the soil erosion damage of the state and gave preliminary consideration to catchment area (i.e., drainage basin) problems. In accordance with the recommendations of the Agricultural Department representative, who had proceeded overseas to study erosion control methods, and with the advice of the Committee, the Government decided in 1937 that "the nature and scope of the erosion problem in N.S.W. was such as warranted the constitution of some *independent* [my italics] authority to assume the responsibility of dealing with it in all its varied phases."⁷

As a result a Soil Conservation Service was set up in the same year with the former Department of Agriculture representative as its Director. It is significant to note that the Service was set up as an independent statutory authority and not placed in the Department of Agriculture. Instead, it was placed under the general

oversight of the Minister for Mines, which is a relatively minor portfolio in the N.S.W. Cabinet.⁸ Staff was gradually recruited and investigational and educational work put under way. To provide legislative backing for the work of the Service, a Soil Conservation Act⁹ was passed by the N.S.W. Parliament, and became law on October 28th, 1938.

As the first Australian soil conservation legislation, and as the pattern which much of the subsequent legislation in other states followed, the N.S.W. Act is of some significance. It provides that important catchment areas and tracts of country specially liable to erosion damage may be designated either as "catchment areas" or as "areas of erosion hazard." Agreements may be entered into with owners of land therein by the Soil Conservation Service, covering the system of erosion control which should be instituted upon such lands. This provision has something in common with United States procedure, but the areas are established by government proclamation rather than as a consequence of petitions of local landowners. Another section provides for the establishment of projects on lands not proclaimed under either of the above categories, and thus permits some degree of arbitrariness on the part of the Service in the choice of landholders on whose properties it locates its demonstration projects.

Owners may appeal against such proclamations. Appeals are heard by the Land and Valuation Court, which must arbitrate on the technical question as to whether or not the tract of land concerned is subject to erosion.

When, in any area that has been proclaimed an area of erosion hazard, the owner of any portion of land refuses

⁶ N.S.W. Department of Mines, *Annual Report 1937*, p. 40.

⁷ *Ibid.*

⁸ Similarity to U.S. experience in regard to the placement of the Service in the governmental hierarchy is rather striking.

⁹ N.S.W. Parliament, *Soil Conservation Act* (No. 10 of 1938).

to enter into an agreement with the Service covering a project to be instituted in the area and where erosion control work is necessary to avoid damage to some other land in the area, the Soil Conservation Service may, subject to Ministerial approval, carry out such works as it sees fit (subject to appeal) and may levy such charges as are considered reasonable in view of the effect of the works on land values (again subject to appeal).

Provision is made in the Act for government loans to be made available to farmers participating in projects and for the government to pay expenses on erosion projects insofar as this is necessary. The loan provisions of the Act have not been used extensively to date, but with the proclamation of some amending legislation already passed by the N.S.W. Parliament, loan operations may be considerably extended.

By 1944 the Service had developed an administrative classification of projects involving (1) Government Soil Conservation Projects and (2) Farmers' Soil Conservation Projects. The former are projects of a demonstrational and experimental nature, which usually involve complete drainage basins consisting of perhaps several farms. All erosion mitigation work is done by the Service, but the farmers concerned enter into a voluntary cooperative agreement. The Farmers' Soil Conservation Projects, on the other hand, represent units of one or more farms, the owners of which seek advice from the Soil Conservation Service. Where the necessary work is of such a nature that the farmer cannot do it himself, the Service may use its equipment and require the farmer to bear the cost of actual construction work.¹⁰

The Act makes provision for catchment areas to be proclaimed in a similar

fashion as the areas of erosion hazard aforementioned except that there can be no appeal in this instance. Provisions similar to those applying to areas of erosion hazard apply in this case but, in addition, the Minister has power to control land utilisation.

Unlike legislation in most other states the Act did not specifically provide for the creation of an Advisory Committee in N.S.W. although provision was made for the appointment of advisory committees at the discretion of the Minister. However, a Catchment Areas Protection Board was brought into being under the Act. It is composed of the Minister, the Director of the Service, and representatives of government agencies whose activities bear on the work of the Service. Its functions are not explicitly defined in the Act but they are described by the Soil Conservation Service as being "to regulate the disposal of Crown lands in areas where there is serious erosion liability and act in an advisory capacity in respect of any aspect of the erosion problem which may be *especially* placed before it."¹¹ (Italics supplied.) In comparison with other states, the Committee has a very subsidiary role *vis-a-vis* the Director. It would appear to be an instrument by which the soil conservation authority was able to get some measure of control over the land settlement activities of the Lands Department and avoid, at the same time, any embarrassment from a strong advisory committee whose terms of reference covered the entire conservation field. There is no evidence that the Committee ever functioned very actively.

The Soil Conservation Service continued to operate independently, subject only to the general oversight of the Minister for Mines, until 1944. In the reorganization of the Cabinet which

¹⁰ Rural Reconstruction Commission, *op. cit.*, p. 59.

¹¹ N.S.W. Department of Mines, *Annual Report 1938*, p. 40.

followed the 1944 elections, a new portfolio was created bearing the title of Minister for Conservation. The former Forestry Commission, the Water Conservation and Irrigation Commission and the Soil Conservation Service were brought together to form the Department of Conservation. However, each section retained its former administrative set-up, an overall secretariat simply being added.

The N.S.W. Soil Conservation Service has received considerable attention politically since its inauguration. In particular, the Labour Party, which has been in control of the Parliament of the state since 1941, has fostered the growth of the Service, financially and otherwise. The peculiar appeal which conservation work has for the general public naturally makes it a useful object of political propaganda. At the same time, it would be interesting to study the extent to which the Service has reciprocated this attention. One might enquire, for instance, whether the Service has operated strategically in setting up demonstration projects and in locating its experiment stations.

Queensland. In Queensland no specific agency has been set up to deal with soil conservation and no specific enabling legislation has been passed by Parliament.¹² However, soil erosion investigations come within the ambit of the Bureau of Investigation constituted under the Land and Water Resources Development Act.¹³ This Act, which was designed broadly to foster the coordinated development of the natural resources of Queensland, provided for the creation of the Bureau (made up of five Departmental representatives) responsible to the Minister for Public Lands, together with a permanent technical staff. With the

object of making a special soil erosion survey, a Soil Conservation Officer was appointed to the Bureau during 1945.

The Queensland Department of Agriculture has also undertaken advisory work in soil conservation as part of its general extension programme. A special Erosion Officer was first appointed about 1940 and some preliminary demonstration projects were commenced. The Department is planning to develop further both the research and advisory aspects of soil erosion control. It apparently has secured Cabinet's approval of the principle that soil conservation work is to be in its province—the Bureau of Investigation conducting surveys only.

Two features of the Queensland Act are of some significance to the present discussion. The first is the elaborate provision made in Section 19 of the Act to ensure that pre-existing government agencies, having an interest in the natural resource field, provide all required information to the Bureau. Despite these legal prescriptions, the Bureau has experienced difficulty in securing the wholehearted cooperation of other government instrumentalities.

The second important provision of the Act is the wide power granted to the Land Administration Board (subject to Ministerial approval) to resume freehold land when it is not satisfied that the owner is, financially or otherwise, able to develop and bring such land to production within a time or in a manner satisfactory to it. No procedure for appeal is outlined in the Act. This clause has not been invoked to date. Its provisions are obviously sufficient to cover serious cases of soil erosion on private lands.

Victoria. By an Act of the Victorian Parliament in 1940,¹⁴ a Soil Conservation

¹² Some has been mooted. Cf., Queensland Department of Public Lands, Bureau of Investigation, *Second Annual Report* (1945), p. 7.

¹³ Queensland Parliament, *The Land and Water Resources Development Act* (No. 38 of 1943) (assented to November 25, 1943), amended slightly by the *Irrigation and Water Supply*

Commission Act (No. 11 of 1946).

¹⁴ Victorian Parliament, *Soil Conservation Act*, No. 4786 (1940), (assented to December 9, 1940), amended by *Soil Conservation Act* No. 4937 (1942).

Board was established in that state with the specific function of conducting research and extension work in soil erosion control. The Board is an extra-departmental committee responsible only to Parliament. Unlike the advisory committees in other states it has an administrative function. It has a full-time chairman, five part-time technical representatives of various government departments and one part-time farmer representative. This Board is virtually a continuation of an earlier Soil Erosion Committee set up in 1936.

The Act contains no specific provision for the organisation of soil conservation districts. It does, however, permit the Board to make agreements with individual landowners for the conduct of demonstration projects and to pay the costs thereof.

Like the Queensland legislation, the Victorian Act deals at length with the matter of interdepartmental cooperation, but explicitly requires the Board, as far as is practicable, to carry out its functions through the government departments represented on it. The Act also has provisions for the appointment of regional advisory committees.

Apparently with the aim of setting up a more complete soil conservation organisation, the original Act required the Board to prepare a special report setting forth detailed proposals with respect to further legislation it considered desirable. To date no further legislation (except the minor amendments of the 1942 Act) has been brought before Parliament, though some amendments have been mooted.¹⁵ The Board was unable to make much progress during the war period, but its last report indicates

that increases in staff had enabled several demonstration projects to be set up and enabled increased assistance to be given individual farmers on erosion problems.

South Australia. The first soil conservation legislation in South Australia might be considered to be the Sand Drift Act 1923-35, which dealt with the problem of sand drift in the more arid pastoral areas of the state. An advisory committee on soil erosion was set up in 1936 but did not do much active work. The first specific legislation was the Soil Conservation Act of 1939.¹⁶ Under this Act an Advisory Committee on Soil Conservation of seven members, including two representatives of pastoral interests, was appointed. The function of the Committee was to advise on such soil erosion and soil conservation matters as were referred to it.¹⁷ The Act empowered the Crown to acquire land for soil conservation reserves and thus enforce rigid control over its use, if any. It also permitted the execution of control measures for research purposes on private lands and enabled grants and loans to be made for such works.

In 1941 the South Australian Department of Agriculture set up a Soil Conservation Branch within its organization and appointed a qualified technician to the position of Soil Conservator. In recent years the Branch has acquired a few additional officers, but is still relatively small. It has concentrated on service activities for farmers together with some educational work.¹⁸ Research is regarded as a long-term proposition.¹⁹

In 1943 an amending Act was introduced into the South Australian Parlia-

¹⁵ Under the 1943 Act, the Committee was empowered to make recommendations on its own initiative.

¹⁶ R. I. Herriot, "The Organization of Soil Conservation Work in South Australia," *The Journal of the Australian Institute of Agricultural Science*, September 1946, p. 93.

¹⁷ This is in keeping with the general policy of the South Australian Department of Agriculture, which has never been very active in the research field.

¹⁵ Victoria, Soil Conservation Board, *Sixth Annual Report* for the year ended June 30, 1946, p. 7.

¹⁶ South Australian Parliament, *Soil Conservation Act* (No. 25 of 1939) (assented to November 30, 1939).

ment.²⁰ The most important change was the introduction of a clause empowering the Minister, with the advice of the Committee, to require any landowner to take specific measures to prevent soil erosion. Unlike the N.S.W. Act, there was no explicit provision for appeal and no justification in terms of damage to adjoining properties.

The Soil Conservation Amendment Act (1945)²¹ contained further important amendments. In particular, it repealed the rather stringent clause discussed in the last paragraph. The Act is interesting in that it is the Australian legislative measure which comes closest to following the soil conservation district principle operating in the United States. Under Section 6 of the Act, three-fifths or more of the occupiers of land in any area may present a petition to the Minister of Agriculture praying that that area should be constituted a soil conservation district. The petition is examined by the Soil Conservation Committee before action is taken. For each district the governor appoints a district soil conservation board consisting of not less than three, nor more than seven members. One of the members is nominated and elected by members of local government bodies in the area. The remaining members of every board are nominated by the state Soil Conservation Committee.

The district boards carry on general advisory and investigational functions. A board may appoint local committees of not more than five persons to conduct enquiries or investigations in local areas. A considerable portion of the 1945 Act is given over to outlining the legal procedures to be followed in issuing soil conservation orders. These orders may be issued by a board, either on petition by

affected farmers or on its own initiative—in any case, where land within its district is likely to be damaged by inferior agricultural practices. It issues so-called *provisional* orders specifying what work the offending landowner shall do or refrain from doing. *Interim* orders may be made by the chairman of a board in urgent cases. Provisional orders may also be issued by the Soil conservator in respect of lands not situated in soil conservation districts.

No provisional order has any force until it is confirmed by the State Soil Conservation Committee, or the chairman acting on behalf of the Committee, if no protests are raised. Parties interested in the order can make representations to the Committee, but once the order is confirmed or varied by the Chairman or Committee, it is not subject to further appeal. If the person bound by the order fails to comply with it, the Committee may authorize the work to be done and charge the costs to the occupier.

Western Australia. Between 1936 and 1945 Western Australia had a Soil Erosion Committee comprising nine representatives of the Departments of Agriculture, Lands and Forests. Apart from a rather superficial survey conducted in 1939, there is no material evidence of positive action by the Committee. There was, moreover, no special staff working within the Department of Agriculture in this field during this period.

After pressure had been exerted from several directions,²² a Soil Conservation bill was brought before Parliament in September 1945.²³ This Act is a legislative hybrid, apparently representing the outcome of an attempt to mould into

²⁰ South Australian Parliament, *Soil Conservation Amendment Act* (No. 37 of 1943) (assented to December 23, 1943).

²¹ South Australian Parliament, *Soil Conservation Amendment Act* (No. 44 of 1945) (assented to January 24, 1946).

²² See Rural Reconstruction Commission, *op. cit.*, p. 66. The Premier who introduced the bill was Chairman of the Commission. Note also the action of the Australian Agricultural Council in February 1945, discussed below.

²³ Western Australian Parliament, *Soil Conservation Act* No. 15 (of 1945) (assented to January 9, 1946).

one act, features of the Soil Conservation Acts in force in New South Wales, Victoria, South Australia and New Zealand. It was drafted by the Soil Erosion Committee mentioned above.

The Act provided for the establishment of a "Soil Conservation Service" Branch in the Western Australian Department of Agriculture, administered by a Commissioner of Soil Conservation. It also gave legislative backing to the constitution of a "Soil Conservation Advisory Committee" of eight members appointed for five years—the Commissioner, four Departmental and three farmer representatives. This Committee may make recommendations to the Commissioner who, if he does not adopt them, is required to submit them to the Minister for arbitration.

The Act has clauses similar to those in other state acts, providing for inter-departmental cooperation. However, despite the location of the Service in the Department of Agriculture, one clause provides that the Commissioner may, subject to Ministerial approval, exercise his functions independently of any government department or public authority.

Section 22 of the Act, following a New Zealand precedent,²⁴ provides that the Governor may, by proclamation, constitute any portion of the state as a soil conservation district and make regulations for land use and erosion control in such an area. There is no provision for local petition, as in the South Australian Act, and no right of appeal for contravention of directives issued. However, there is an interesting subsection allowing that, in a hearing before a court on a charge of non-compliance, it shall be deemed a lawful excuse if the defendant can show that he did not possess, and was unable to obtain, the money necessary to enable him to carry out his obligations under

the regulations. This is in marked contrast to the Queensland law, where evidence of insufficient finance to develop a holding to the satisfaction of the inspecting authority is sufficient cause for a man to be deprived of his holding.

The Act includes provisions for Regional Advisory Committees (consisting of the Commissioner, one representative of local road boards and three local persons) to be appointed for any soil conservation district. These committees are purely advisory, both to farmers and to the Commissioner (as in the Victorian case). Soil conservation reserves, after the South Australian pattern, may be set apart under the Act, and notification of "areas of erosion hazard" follows the N.S.W. precedent. The provisions in this latter section of the legislation are practically identical with the procedures of the N.S.W. Act. Superficially, there would appear to be some degree of duplication involved in having provision for the proclamation of both soil conservation districts and areas of erosion hazard. Apparently the former are to be constituted where it is desired to enforce general land-use regulations,²⁵ while areas of the latter type are to be set up where more specific soil erosion control measures are contemplated.

Other States. Tasmania has, as yet, no specific legislation in the soil conservation field and has assigned no special staff to this particular job. The Commonwealth Government has constituted a Soil Conservation Service in the Department of the Interior within the last two years, to give attention to erosion problems in the Commonwealth territories—in particular, Northern and Central Australia. There is no record of any positive work by this Committee to date.

²⁴ New Zealand Parliament, *Soil Conservation and Rivers Control Act* (No. 12 of 1941).

²⁵ In this respect they have more in common with the catchment areas of the N.S.W. legislation than soil conservation districts of the South Australian type.

TABLE I--SOIL CONSERVATION ADMINISTRATION IN THE AUSTRALIAN STATES:--AS OF JUNE 30, 1947.

[illegible]

In the accompanying table an attempt has been made to bring together, for comparative purposes, the more important features of the soil conservation programmes at present in operation in the several states. It is essentially a crude, static picture—it does not reveal the stages in the evolution of policy, nor does it make evident many important, though subtle, differences. It may, nevertheless, help to bring major distinctive characteristics into focus.

The Place of the Commonwealth Government in the Field of Soil Conservation

As has been indicated above, the Australian federal government lacks constitutional power over conservation of natural resources. Prior to 1942 its intervention in soil conservation matters was limited to participation in discussions of the Australian Agricultural Council. However, since that year it has been clear that the Commonwealth Government has considered that some extension of its powers in this field was desirable.

In October 1942, when the Commonwealth Government introduced a bill to extend federal powers during the post-war reconstruction period, soil conservation was specifically included.²⁶ In the document setting out the federal case presented at the Constitutional Convention held in November 1942, the following statement was made:

It can be safely said that technically the problem of erosion is solved. The measures necessary to defeat it are clearly understood. The reasons why they have not been fully implemented are social and political, not technical. The prevention of soil erosion calls for action in accordance with a unified plan by the individual farmer . . . , it calls for cooperative action by local groups of

farmers, it calls for technical supervision and advice by the State Government agricultural and other technical experts, it calls for an integrated works policy covering flood control, afforestation, etc., by local government authorities, State Governments and the Commonwealth itself. The problem of soil erosion is a classic example of problems which can only be solved by an integrated governmental and administrative machine directed from top to bottom by a common policy, i.e., by the type of organisation, which has been established by the Commonwealth during the war and which it is its intention to continue into time of peace.²⁷

If this statement represented the well-considered views of a substantial number of influential minds, it would undoubtedly warrant detailed examination. But it must rather be regarded as an interesting example of the length to which advocates of centralised governmental control will go in seeking to rationalise their position. There is certainly no empirical evidence that the technical problem of soil erosion has been solved, at least at a level of costs that the agricultural industries can bear—witness alone the substantial funds devoted annually to research in this field both in Australia and elsewhere. Nor is there any evidence that an "integrated governmental and administrative machine directed from top to bottom by a common policy," much less the espoused Australian wartime model, is the most appropriate form of administrative organisation for getting soil conserving practices on the land.

In the standard act subsequently drafted for the guidance of state legislatures, in transferring powers to the Commonwealth for a period of five years after the cessation of hostilities, soil erosion control was not specifically men-

²⁶ Commonwealth of Australia, *Constitution Alteration (War Aims and Reconstruction) Bill (1942)*. The specific clause reads "(power in respect of) national works and services including water conservation and irrigation, afforestation, and the protection of the soil."

²⁷ *Post War Reconstruction—A Case for Greater Commonwealth Powers*. Prepared for the Constitutional Convention at Canberra, November 1942, by and under the direction of the Attorney-General (Government Printer, Canberra: 1942) p. 64 footnote.

tioned but would have been covered by the relevant clause. When agreement by the states could not be achieved on the proposal to transfer powers, and the Commonwealth Government decided to hold a referendum on August 19, 1944, a similar clause covering public works was again inserted in a modified form, viz., "[power to make laws with respect to] national works, but so that, before any such work is undertaken in a State, the consent of the Governor in Council of that State shall be obtained, and so that any such work so undertaken shall be carried out in cooperation with the State."²⁸ In the referendum the proposed changes failed to secure the approval of the electorate, only two states voting in favour. No subsequent attempt to secure additional powers in the field has been made.

The Rural Reconstruction Commission in its *Third Report* (1944) judiciously refrained from making any specific reference to the place of the Commonwealth in the resource conservation field, but instead stressed the importance of the states' building up their work.²⁹ In the Commonwealth Government's White Paper on "Full Employment" issued May 30, 1945, there is a suggestion that soil conservation measures might be among the public works expenditures that might be made in the event of a depression, but it does not state explicitly how such a policy would be put into effect.³⁰

In February 1945, the Commonwealth Government representatives initiated discussions before the Australian Agricultural Council on soil conservation. The Council recommended that each state

should set up an adequately staffed soil conservation authority, that the Commonwealth should do likewise for its own territories, that a standing committee on soil conservation should be established to coordinate the activities of the states and the Commonwealth, and that a small secretariat should be set up in the Commonwealth Department of Commerce and Agriculture. After an emphatic statement of states rights, the resolution defined the functions of the Commonwealth *vis-a-vis* the states.³¹ This proposal sought essentially to set up a similar organisation to the Standing Committee of the Agricultural Council, only specifically confined to the soil conservation field. Some justification for a new committee could be found in the fact that in some states the Soil Conservation Service was not in the Department of Agriculture. The committee was to be made up of the heads of the Soil Conservation Services in each state and the Commonwealth, one member of the Council for Scientific and Industrial Research and a member of the Commonwealth Department of Commerce and Agriculture.³² The Commonwealth Government naturally agreed to the proposal and submitted it to the Premiers' Conference which met soon after. At this meeting the matter was allowed to lapse. It probably would not be too presumptuous to suggest that this resulted because the State Premiers were suspicious of the possible extension of Commonwealth powers in this field. The Prime Minister, in describing these events subsequently, said that the matter should again be brought before the Agricultural Council "to see if the State Ministers of Agriculture could bring

²⁸ Commonwealth of Australia, *The Constitutional Alteration (Post-war Reconstruction and Democratic Rights) Bill*, 1944.

²⁹ Rural Reconstruction Commission, *op. cit.*, p. 66.

³⁰ Commonwealth of Australia, *Full Employment in Australia*. (Paper presented by Command, May 30, 1945.)

³¹ Commonwealth of Australia, *Parliamentary Debates*, 17th Parliament, 3rd Session, March 1, 1945, p. 227.

³² Informal meetings between the State Soil Conservation Services of New South Wales, Victoria and South Australia had been held independently of the Commonwealth. Cf., Victoria, Soil Conservation Board, *Sixth Annual Report*, *op. cit.*, p. 4.

pressure to bear on the Premiers of their respective States in order to follow the matter up in an energetic way."³³

There have been several suggestions given by the Prime Minister over a period of time, that the Commonwealth Government might furnish financial assistance to the states for soil conservation, probably on the grant-in-aid principle. From some statements it would seem that the Commonwealth Government wanted the standing committee constituted before it would consider disbursements for this purpose.³⁴ The states would probably be most emphatic that any grants by the Commonwealth should be handled by state agencies rather than by direct federal-farmer relationships.

A subsequent Premiers' Conference, held almost a year (January 24, 1946) after the Agricultural Council resolution was passed, agreed that a Standing Committee on Soil Conservation should be established along the lines originally proposed. The Committee, however, is required to make its recommendations to the Standing Committee on Agriculture which, in turn, advises the Australian Agricultural Council,³⁵ instead of making direct submissions to the latter body, as was originally proposed. A small secretariat for the Committee has been established in recent months in the Commonwealth Department of Commerce and Agriculture. The first meeting of the new Committee was held June 12-13, 1946. It is anticipated that meetings will be called annually. It is too early to appraise the work of the Committee, but

on a *priori* grounds, with the state organisations at present in existence, there would appear to be little administrative justification for it apart from the fact that it might facilitate technical co-ordination of services. The suggested frequency of meeting may be some index of the volume of business the Committee has to transact.

The administration of federal grants-in-aid, if they do eventuate, might yet prove to be an important function of the Committee. Likewise, interstate catchment area problems might be a matter for negotiation before the Committee, though it is more likely that they would be handled directly by the states concerned, as has been done in the past. To those states with limited resources to devote to soil conservation work, the Committee may be able to give a substantial amount of help in the technical field. Where funds and facilities available for fundamental research are restricted, some division of labour might be successfully arranged.

A more realistic interpretation might regard the constitution of the Committee as an achievement for the Commonwealth Government as it, at last, enables it to have a voice in soil conservation policy. On the other hand, the statement on agricultural policy,³⁶ recently issued by the Commonwealth Government, merely described the Committee's function as being that of facilitating exchange, between the states and the Commonwealth, of information relating to soil conservation.

³³ Commonwealth of Australia, *Parliamentary Debates*, *op. cit.*, September 27, 1945, p. 6108; also *ibid.*, September 19, 1945, p. 5575.

³⁴ *Ibid.*, March 21, 1945, p. 722. Cf., *ibid.*, July 26, 1945, p. 4424. Beginning July 1, 1947, all monies expended by farmers on soil conservation measures are to be free from income tax. This is the first move by the Commonwealth Government in this direction. It resulted largely from continued representations made by the Graziers' Federal Council of Australia.

³⁵ The anomalous position of the Director of the N.S.W. Soil Conservation Service on the Standing Committee on Soil Conservation should be noted. This arises from the fact that in N.S.W., the Soil Conservation Service is not located in the Department of Agriculture. Both the Standing Committee on Agriculture and the Australian Agricultural Council, to which the Soil Conservation Committee's recommendations go, draw their N.S.W. members from the Department of Agriculture.

³⁶ Commonwealth of Australia, *A Rural Policy for Post-War Australia* (Canberra: 1947), mimeo.

Interdepartmental Coordination

In the remaining paragraphs, it is proposed to deal briefly with some of the more significant issues which arise out of the administration of soil conservation programmes in the Australian States. One point on which there may be considerable difference of opinion is the question as to the most desirable position in the governmental hierarchy for a soil conservation service. This sort of problem arises whenever a new agency is added to a government, but is particularly crucial when several other long-established departments have interests bearing on the work of the new agency. This is especially likely to be the case in the natural resource field. However, the place of the new agency is not the only matter of consequence. There is also a reciprocal effect. The new agency may have an interest in the policies adopted by the older agencies. For instance, a soil conservation service may be justifiably concerned over the type of land settlement policy followed by the agency responsible for that function.

The earliest solution, adopted in N.S.W., was to create an entirely new organisation and attach it to the Mines Department, which had no vested interest in the field concerned. This probably might be explained, to a large extent, by the personal and professional relations of the Director of the Service. There is, however, another element—the view that if a problem is to be tackled by setting up a new agency, more effective work will be done if a separate special organization is constituted, rather than if an additional branch is set up in an old department. This view has persisted and may be seen in the recommendations of the Rural Reconstruction Commission as late as 1944.³⁷ There is also sometimes a feeling

that, in a resource problem involving several government departments, a more unbiased treatment of the views of different instrumentalities is obtainable when the coordinating agency is not closely tied to one of the interested parties. This, no doubt, was the reason at the back of the Queensland organisation. On the other hand, the fact that the N.S.W. Soil Conservation Service was placed in a Department of Conservation in 1944 may be some evidence of the unsatisfactory nature of the earlier arrangement.

Even so, the problem of interdepartmental friction persists in most states, and was sufficiently brought out in evidence before the Rural Reconstruction Commission for the matter to be treated at some length in its *Third Report*. It would appear to be most serious in N.S.W. and Queensland. The Commission offered no real solution save to remark that “the ability of those concerned to avoid friction and interdepartmental jealousies will mainly determine the success of the scheme and the speed with which it is attained.”³⁸ It recorded its conviction that the advisory committee was, to some extent, the answer to the problem. In N.S.W. no such committee exists, but all the other states have them in one form or another. The Victorian Committee seems to have been least successful, principally because for a long time it had no officer giving his undivided attention to conservation matters. It is perhaps significant that, in the two states which have most recently instituted Soil Conservation Services (viz., South Australia and Western Australia), the Service has been set up as a branch of the Department of Agriculture, and has been supplemented by an advisory committee comprising representatives of other interested departments. From superficial observation, it

³⁷ Rural Reconstruction Commission, *op. cit.*, p. 60.

³⁸ *Ibid.*

would appear that this is the most successful organisation of any yet devised.

In the states where the Soil Conservation Service is independent of the Department of Agriculture (viz., N.S.W. and Victoria) very real confusion exists (particularly as far as instructional work in the field is involved) as to where the work of the Department of Agriculture ends and that of the Soil Conservation Service begins. This is particularly so when one passes from the field of mechanical erosion control to that of control through agronomic practices. Even in the former area, in the case of N.S.W., officers of the Horticultural Division of the Department of Agriculture have done and continue to do contour planting of orchards for farmers. In general, it can be said that better working relations between departments have developed in late years.³⁹ To some extent this may be the result of a realisation that the new Service is there to stay and that, accordingly, a *modus vivendi* must be worked out.

It is difficult to appraise the utility of the State Conservation Advisory Committees apart from the fact that they have enabled better interdepartmental relations to be developed. They certainly have achieved more in this direction than have the curt directives in many of the state acts requiring external agencies to cooperate and provide information. Except in this last respect, there is no evidence that the N.S.W. Conservation Service has suffered through lack of an advisory committee. Indeed, it might seem that such a committee would be an

impediment to the rapid execution of business. These remarks might not apply in the Western Australian case where farmer representation on the committee is stronger than in other states and thus might provide an effective curb on arbitrary technical action. An additional argument is provided where rather drastic provisions for the enforcement of soil conservation regulations exist (e.g., South Australia) in that it is better, in principle, for such action to be subject to the review of a board rather than an individual.

The Problem of Coercive Action

As has been seen in the review of individual state action in the conservation field, considerable difference exists as regards soil conservation regulations both in respect of their severity and the arbitrariness with which they can be applied. There is evidence that, in most cases, when the bills in question were before the Parliaments, considerable apprehension was expressed by farm organisations and others concerning these clauses, but they were allowed to remain after an assurance was given that they would not be applied except in extreme cases.⁴⁰ The Queensland clause is probably the most severe of any; the South Australian clause in the 1943 Act (repealed in 1945) was almost as severe.⁴¹ It is too early, as yet, to say to what extent these clauses will be applied. Certainly nothing has been done to date. It seems most likely that they will be used rather as threats to achieve compliance. The whole ques-

members of the Service. However, it is of interest to note that such a committee was established in January 1947. What the Committee will achieve in the way of coordination is yet to be seen.

³⁹ E. g., editorial, "The Soil Conservation Bill," *The Journal of the Australian Institute of Agricultural Science*, Vol. 4 (1938), p. 122.

⁴¹ Some partial explanation as to how these laws got on the statute books might be found in the fact that the majority of these acts were passed at a critical stage of the War, when people had become accustomed to rather severe regulations on grounds of national defense.

³⁸ Even so, much has yet to be achieved in the research field alone. Two of the experiment stations set up by the N.S.W. Service are located within a few miles of experiment stations established by the Department of Agriculture some forty or more years earlier. This duplication of research facilities (among others) has been the subject of critical comment by several groups, including, in particular, a professional group of agricultural scientists (The Australian Institute of Agricultural Science). Proposals made by this group to the Premier in 1944, that an Agricultural Research Coordination Committee should be set up was opposed by

tion is, of course, closely bound up with the problem of the difficulty of drawing up standards of agricultural efficiency.⁴² As a matter of personal judgment, one might say that the technical expert has been given an extraordinary amount of discretionary power in most states.

The Soil-Conservation-District Principle

There is no doubt that the administrative precedents of the U. S. Soil Conservation Service have considerably influenced the writing of much of the Australian legislation in this field. However, the soil conservation district has not played the important role in soil conservation programmes in Australia that it has in the United States. The failure to adopt this significant institution must be put down to several distinctive elements in the Australian scene, most of which arise out of the fact that the Australian States have, and do exercise, infinitely more power than does the Federal Government in the sphere of soil conservation. Accordingly, there has been no occasion for any legislative counterpart of the U. S. Act of 1935,⁴³ which authorized the Secretary of Agriculture to require state legislation of a prescribed standard (with an obvious predilection towards legislation fostering the creation of soil conservation districts) as a precondition to the receipt by farmers of benefits from the federally-sponsored programme. It is not intended to suggest that this section of the Act (even though it was partially responsible, at least, for the rapid expansion in the number of soil conservation districts in the United States after 1935) wholly explains the difference between

Australia and the United States in this connection. The emergence of the soil conservation district movement in the United States cannot be understood without reference to the peculiar institutional conflicts, constitutional problems, ideological concepts, and other significant elements of the United States cultural scene in the middle 'thirties.⁴⁴

Furthermore, conservation programmes in the Australian States have scarcely been on a sufficiently large scale to date to warrant elaborate local administrative machinery. In most states where a regional organisation is followed there is no provision for the formation of districts as a result of petition by local landowners except in the case of the most recent Act in South Australia. In other states the districts are set up and defined by government proclamation. South Australia is also the only state having provision for district and local committees within each soil conservation district. Western Australia and Victoria have district committees but they are purely advisory in character. It is significant that positions on these committees are wholly filled by appointment and not by election as is commonly the case in many U. S. soil conservation districts. Moreover, the committees have less autonomy than do their American counterparts. Even in the South Australian case, the only real power the district committee has is that of issuing provisional orders against uncooperative farmers. But even here their decision is subject to confirmation by the state Committee. In no real sense can they be considered to be local units of demo-

⁴² Cf., J. P. Maxton, *The Control of Husbandry—A Discussion of the Future of War Agricultural Committees* (Oxford Institute of Agrarian Affairs, 1946).

⁴³ Cf., *United States Soil Erosion Control Act of April 27, 1935* (Public No. 46, 74th Congress), Section 3.

⁴⁴ By the same token, those who would advocate the adoption, in Australia, of soil conservation districts on the U.S. model largely on the ground of strengthening the local democratic process, would be well advised to make a more penetrating analysis of the circumstances which gave birth to the districts and have attended their development in the United States in the last ten years.

cratic government.⁴⁵ However, it may be that, as further sums are appropriated for soil conservation, some more meaningful forms of local administration may be developed.

Conclusion

There is little that can be said definitely at this stage concerning the success, or otherwise, of the various soil conservation organisations set up in Australia in

recent years. Up to the present, many of the programmes have scarcely proceeded beyond the blueprint stage. The actual functioning of the various types of administration and legislative enactments devised should provide, during the next few years, useful comparative material for further study.

⁴⁵ Cf., H. Walker and W. R. Parks, "Soil Conservation Districts—Local Democracy in a National Program," *The Journal of Politics*, Nov. 1946, pp. 538-549.

Reports and Comments

Observations on Riggs' and Thompson's Comments on Nash, *Anatomy of Depreciation*.

THE Managing Editor of the *Journal* has afforded me the privilege of making a few observations on Professor Thompson's and Dr. Riggs' comments on the late L. R. Nash's *Anatomy of Depreciation*.¹ Professor Thompson "goes all out" for the 1943 NARUC Depreciation Committee's espousal of undiluted straight-line depreciation for accounting and rate-making purposes; if he is wrong or the utility industry does not "go along" then he feels constrained to abandon regulated private ownership and favor public ownership. Dr. Riggs, on the other hand, seems still to subscribe to the "retirement reserve method" which was abandoned for accounting purposes by most commissions in 1936-1938.

I believe a middle position is more realistic:

1. Thompson makes much of the commission "theme song" that equitable treatment of rate-payers requires consistency in determining annual depreciation expense and the deduction for accrued depreciation. Riggs disputes this.

Baldly stated, the consistency argument is strongly persuasive. It does seem inequitable to ask rate-payers, having once provided for depreciation in expenses, to provide earnings on property, included in the rate-base, for which depreciation has already been provided. That seems equivalent to paying twice for the same property.

What Dr. Riggs might have pointed out but did not do so is that:

a. This consistency idea implies not only that past earnings have always been excessive, never deficient, and past excess earnings are recapturable but also that depreciation for rate-making purposes is only a matter of accounting and a process of amortizing costs; these implications are believed to be not wholly or universally acceptable;

b. Commissions, nevertheless, sometimes try to identify such an accounting procedure for amortizing costs with a rate-base valuation

procedure of determining depreciation, which word is understood by the man on the street in every-day transactions as a loss of market value;

c. Depreciation for rate-making purposes means such loss of value;

d. A cost amortization procedure, however suitable for accounting purposes, is not altogether suitable, in the long run, for rate-base valuation purposes;

e. Only by chance would a straight-line depreciation reserve requirement happen to coincide with depreciation estimated on a loss-in-value basis, since depreciation on such a basis does not accrue on a straight-line or even a continuous curve (absent a stable price level);

f. Frequently the consistency idea is applied retroactively on a pro forma basis without consideration of (1) depreciation or authorized accounting practices in the past or (2) the adequacy of rate schedules and earnings in the past; and

g. Depreciation expense stated as an amortization of original cost to original owner tends to understate such expense as a current cost of doing business in a period of rising prices (such as at present) and to overstate such expense when price drops fall below original costs.

It is regrettable, I think, that a basic issue was not more squarely joined by the two reviewers. This issue, as this observer sees it, is whether depreciation should be viewed as exclusively a matter of cost-accounting and amortization of capital, used alike for accounting and rate-making, or whether the financial aspects of depreciation should also be taken into account. The 1943 NARUC Depreciation Committee and Thompson are emphatically of the former view; Nash and Riggs hold the latter view. The latter distinctly places more emphasis on depreciation provisions as a source of funds for plant re-

¹ See this *Journal*, November 1947, pp. 432-438.

placements and expansion. That is why they oppose universal use of straight-line depreciation accounting for both accounting and rate-making purposes. Instead Nash favors a more flexible "reserve-size" method with an undepreciated rate-base but with an appropriate interest credit on the reserve balance.

Personally, I have long felt that depreciation problems were too complex, variable, and many-sided to be handled practically and equitably by a single simplified formula. Although I recognize the persuasiveness of the consistency idea in rate-making, I question seriously its equity when straight-line depreciation is applied retrospectively to the ordinary case or when applied in rate-making to a utility which has not been continuously subject to an amortized cost rate-base for a considerable period of time. In brief, this consistency theory should not be applied in transition—mid-stream—without due regard for past history and future prospects.

Application of this theory—on a straight-line basis—from a current date certain into the future may not be unreasonable if (1) the future service lives are estimated on a reasonable basis, (2) service life estimates are re-examined and adjusted, in the light of experience and future prospects, at least every five years, approximately, and (3) depreciation provisions are all charged to operating expenses and are not inflated to make up for past theoretical deficiencies, and (4) other elements in the determination of reasonably allowable earnings are equitably and realistically handled. Such application, however, should be frankly on a cost amortization basis, not on a depreciation as loss-in-value basis.

Nevertheless, at the present time there are some more cogent, practical reasons for using an interest-credit-on-reserve-balance method. This method frankly recognizes provisions for depreciation as an internal source of cash for plant expansion but it also recognizes that customers have an interest in such use of the revenues collected from them. To call this interest of customers an equity interest or a creditor's interest, however, gets us impractically too much involved in tracing dollars through various hands and in associated problems. Instead let's recognize that today and tomorrow utilities have a huge plant expansion program to finance. Present plant is usually stated for the most part at

costs of a bygone day and to some extent a bygone owner. Many rate schedules have been predicated on such costs. Today's and tomorrow's plant is being installed at inflated prices. To keep or improve the more balanced capital structures recently attained will require raising large amounts of equity capital. Yet with the abnormally low reserve plant capacity this plant expansion program can hardly fail to dilute earnings somewhat, if not a great deal, at a time when these earnings are already being dampened by present trends of fuel, labor and other costs of operation. Also the glutting of utility equities market with common stocks required to be divested pursuant to Section 11 of the Holding Company Act does not help this situation. Frankly, therefore, at this juncture in the history of the utility industries, this interest-credit-on-reserve-balance method, with an undepreciated rate-base, an appropriate interest rate, and an equitable depreciation accrual, strikes me as a relatively painless bridge between a depressed and an inflated price level. Used with discretion, it may afford a quick and in the long run not inequitable way of facilitating the plant expansion program.

(2) Dr. Riggs criticizes commission ideas on depreciation (and to some extent Nash) also on the basis of his notion of what constitutes an appropriate retirement unit of property. This concept of a retirement unit of property differs from that prescribed in lists of retirement units by most commissions today. Dr. Riggs does not make clear why he believes his unit of property is preferable to that generally used by commissions today. Moreover, I do not feel that Nash is subject to criticism merely because he assumes the same property unit as the commissions prescribe.

(3) Dr. Riggs also, I believe, might well have emphasized that utilities, generally, are treated as regulated monopolies in the regulation of which some commissions seek to use accounting reserves like depreciation in the determination of prices, whereas unregulated industries have their prices freely determined by quite different factors. Indeed, Dr. Riggs might well have drawn more sharply the contrast between the use of an accounting rate-base and a value rate-base, which he evidently believes in ardently.

(4) Dr. Riggs cites FPC figures showing an increase in the ratio of depreciation reserve to utility plant from 1937 to 1945. He neglects

to point out that (a) between 1937 and 1945 the plant accounts were written down substantially (mostly by charges to accounts other than depreciation reserve) to eliminate appraisal "write-ups" or other items in excess of original costs to original owner; (b) most utilities stepped up their provisions for depreciation during this period; and (c) utilities generally experienced a lower than usual retirement ratio owing to inability during the war to make replacements. All these factors help to explain the rise in the reserve ratio.

Also he cites the increase of customers, kwh sales and revenues during these years, with a "steadily decreasing revenue per kwh sold," as evidence of an undepreciated and undepreciating utility. To me, these figures mirror war-time load increases and the prevailing block-form of rate schedule. With the decline in reserve plant capacity and inability of utilities to keep up plant investment, would it not be more reasonable to suspect a more rapid using up of capital from the increase in load?

(5) Professor Thompson criticizes Nash for stating that straight-line depreciation accounting tends to lead to excessive reserves. He does not deny that that situation may occur; but he attributes it to wrong estimates of service life, greedy management or stupid regulation. In that connection he asserts that such excess reserves or the choice of one rate level over another are no concern of the companies, only of commissions and the public. To assert that utility companies have no proper concern whether rates are too high or too low for balanced development of load or for adequate returns to attract capital is obviously ridiculous. Professor Thompson betrays a naive conception of a public utility official as an unconverted Mr. Scrooge. He fails to deal with the question on its merits. There may well be situations of slow growth where depreciation accruals cannot be ploughed back into plant or equivalent earning assets. Is this condition to be ignored in determining an "accounting rate-base" during such an interval? Contrariwise, a period of heavy retirements may pull down the reserve balance, in which event would Professor Thompson say that the resulting higher rate-base should be reflected in increased rates? Such questions as these, and others that might be raised, make the depreciation problem not nearly so simple or sinister as Professor Thompson asserts after his "years of study."

(6) Neither Nash nor the reviewers deal with a question being increasingly discussed in accounting circles during the present period of price inflation. What adjustment, if any, should be made for the advancing costs of replacements, which have been spiralling upward hand-in-hand with fuel and labor prices? By legal prescription in the Baltimore Railways case and by prevailing accounting convention, accruals of depreciation expense for accounting and income statement purposes should be based on book cost which in the case of most utilities today is "original cost to original owner." Only after the property unit is retired and the higher cost replacement installed should depreciation based on the higher present-day costs be charged to rate-payers from the time of replacement on. This seems quite logical in a continuing enterprise of indefinite life, which is subject to price regulation. Yet, as a practical matter, if the net result of such policy is to force a utility to reduce its prices when the rest of the price structure is spiralling upward, and later to seek higher prices when other prices are falling, the utility may be pilloried politically on the altar of depreciation and accounting theory. This question is aggravated in an industry like the utilities which are not free agents in price determination and which are characterized by relatively large plant investments per dollar of revenues—on which depreciation charges may amount to some 10 per cent of revenues. It is especially aggravated under present conditions when a large, much-needed plant expansion program accompanied by costs inflated by 50 to 75 per cent may, even without rate adjustments, cause a dilution of earnings at the very time when enlarged earnings are needed to attract new capital on the most advantageous terms. A present understatement of real expenses by as much as even 2 or 3 per cent of revenues would have a marked effect in overstating current incomes.

I have no glib answer for this problem nor do I pretend to state or discuss it fully. I refer to it as an observation of an omission by Nash's reviewers and in the hope of stimulating some helpful and constructive thinking on this phase of the difficult problems immediately facing the utility industries as they step up the tempo of the greatest plant expansion program ever undertaken by them in the same period of time.

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A Plan for Transferring the Farm from Father to Son*

A MAJOR problem of present-day agriculture is the difficulty of accumulating sufficient capital to start farming. Due in part to mechanization and other aids to efficient production, the commercial farms of this country are becoming larger and the necessary investment in land, livestock and machinery is increasing. Many farm parents, having accumulated a certain amount of capital during their farming careers, would like to use this capital to help their sons or sons-in-law start farming. Frequently also they would like the home farm to stay in the family. At the same time there may be a son or a son-in-law who is capable and desirous of taking over the farm but does not have the financial resources to buy it under usual commercial arrangements. How can the parents most effectively use their capital to aid the son in taking over the farm and yet protect their own financial security during the unproductive years of old age?

In order to gain some first-hand information on what farmers are doing about this and to get ideas as to ways in which such transfers could be facilitated, a study has recently been conducted in two sample farming areas of Michigan.¹

In this study it was found that about a third of the present owner-operators are related to the previous owners and a slightly higher percentage of the tenants are related to the present owners. From this it appears that a substantial number of farms do actually stay in the family.

But a tabulation of the 72 related owner-operators shows that over half of them did not acquire ownership until the death of the parents. Twenty-five owners obtained their farms by the statutory laws of descent and 14 by will. Frequently, of course, the operating son had to make payments to other heirs for their interests in the family estates. The important point, however, is that in all these cases the parents kept title until their deaths and made no attempt to aid the present owners in obtaining title at an early date.

The other 33 related owner-operators, or 46 percent of the total, obtained title to their farms before the death of the former owners.

* The opinions expressed are those of the author and do not necessarily represent those of the Bureau of Agricultural Economics or of the other researchers in the Michigan study used in part for this article.

Even here, however, the transfer usually was not made until a number of years after the fathers' retirement from farm operation. In many cases it was after the father's death but before that of the mother. These transfers before death were usually by sale for cash or mortgage, although six were sales on land contract and four were considered gifts. In two of the latter cases life estates were reserved by the parents. While the reservation of a life estate gives the son an assurance of future ownership, the effect otherwise is about the same as transferral by will at death.

In most of the 39 cases, where farms were transferred by the laws of descent or by will, the parents apparently felt that they needed to retain title and receive rent on the land in order to be sure of an adequate income during their declining years. Not only does custom seem to favor this arrangement but the lawyers in the area who were interviewed in the course of the study, and to whom farmers frequently come for advice, were nearly all in favor of the parents retaining title throughout their lifetime wherever returns from such property were needed for living expenses.

It is probable, however, that if retiring farmers could be shown how they could sell the home farms to sons at an early age—even before the latter are financially able to make any substantial down payment—and yet assure themselves of adequate and dependable retirement incomes, many more such transfers would be made. It is even possible that, with proper financial arrangements, the parents could have a larger retirement income and one better adjusted to their needs than that provided by rental returns on an owned farm. At the same time, the son could have the use of the family capital in purchasing the farm at an early age and so gain the benefits of secure tenure, added incentive to save, and the right to operate the farm as he desires and believes most profitable.

In order for the son to realize these benefits the transfer price should usually not be greater than the long-time earning power of the farm. Some protection also must be

¹ This study has been conducted cooperatively by Michigan State College and the Bureau of Agricultural Economics, U.S.D.A. Russell L. Berry represented the College under the direction of Professor E. B. Hill. Sidney Henderson represented the Bureau of Agricultural Economics. A report for publication is in process of preparation.

provided against excessive payment requirements in years of low income—at least while the son's equity is too low to allow commercial refinancing. For the parents to have a satisfactory retirement income they should be able to use the principal, if needed, as well as the annual return on their farm investment. They also need some source of income other than the son's payments in order to protect them from too low an income in bad years and to adjust their income to their own varying annual requirements.

A Sample Plan

How to combine these various features into one transfer plan is the subject of this article.

Obviously no one plan will fit all situations. In many cases transfer within the family will not be desired at all—usually for lack of anyone able and desirous of taking over the home farm. In very many cases the family capital is so small that the parents need the added income of active farm operation as long as the father's health will at all permit. In still other cases the family capital may be so large that there is no real problem with respect to farm transferral. In these and many other situations the following proposals would not apply.

It is also true that for many cases similar to that for which the present plan is proposed, other plans might be equally or more satisfactory. However, the following ideas are presented for whatever value they may have as a suggestion for combining the greatest benefits both to the parents and to the son in a specified type of situation.

The situation assumed has the following characteristics: At 65 years of age the farmer and his wife are ready to retire and a son wants to take over the farm. The parents' life-savings are all invested in the farm, livestock and machinery but are considered adequate to keep them the rest of their lives if they can use both the principal and interest. The total amount of this equity is assumed to be between \$20,000 and \$30,000. The son is about 35 or 40 years of age and has enough capital savings to buy the father's livestock and machinery, or to have already bought these, but not to be able to make any down payment on the farm. The son may have accumulated these savings by farming several years, either in partnership with the father at home or in renting elsewhere, or he may have worked at home under an informal arrange-

ment and gradually bought livestock and machinery with the income allowed him by the parents. This arrangement was found to be very common in Michigan. Again, the son may have worked in industry and saved money. In any case, it is assumed that he has savings of from \$5,000 to \$10,000.

Whether or not there are other children makes very little difference in our illustrative case, since it is assumed that the parents will reserve the right at least to use all their capital savings and the son will be expected eventually to pay the full value of the farm. Any money left in the estate at the parents' death would be distributed among all heirs, including the purchasing son.

The principal objectives of the plan here proposed are: (1) to transfer the farm at not more than its long time value; (2) to provide a flexible payment plan for the son's regular payments so that he will be protected against impossible payments in low income years—this protection to continue at least until the son has a sufficient equity in the farm to be able to refinance it commercially if necessary; (3) the son to make regular payments to the parents on interest and unpaid principal in amounts which will at least equal, and normally exceed, the usual share rental for the farm; and (4) part of the parents' capital to be so arranged that, in bad years when the son can make only small payments, the parents will have other sources of income to meet their needs—these needs, incidentally, not being assumed to be uniform from year to year but to vary according to the state of the parents' health, the level of general prices, or the parents' desire for extra expenditures such as travel or improvements in their home.

The use of the annuity principle in payments by the son to the parents has been suggested.² Under this plan the son would agree to pay the parents a fixed amount per month or per year as long as they live. Annuity payments would have the virtue of assuring the parents that they would not outlive their source of income. But, as proposed, they have three rather serious weaknesses. In the first place they require the son to make fixed dollar payments year after year, with no adjustments for years of crop failure, low

² Ralph R. Botts, "Use of the Annuity Principle in Transferring the Farm from Father to Son," *Journal of Farm Economics*, May 1947.

K. H. Parsons and E. O. Waples, "Keeping the Farm in the Family," *Wisconsin Agr. Expt. Sta. Research Bul.* 157, Sept. 1945.

prices, or other causes of low farm income. In the second place, a fixed monthly or annual annuity may be very far from meeting the parents' income needs—even if the son succeeds in always meeting the payments. Actually, the parents' income needs may fluctuate drastically, depending on the general price level and expenditures for sickness or other items such as travel or household equipment. In the third place, where there are other heirs, it is doubtful whether the son should assume the risk of an excessive payment price for the farm if the parents live beyond normal expectations. It is likewise doubtful whether the other heirs would be satisfied if the son obtained the farm for only a few annual payments in case of the parents' early death.

For these and other reasons, the following method of handling the transfer of the illustrative farm is proposed.

At 65 years of age the father sells the farm, appraised at a normal value of \$20,000, on a land contract. Interest is charged at 4 percent. There is no down payment on the farm itself. Title is to be transferred to the son when he has paid 40 percent of the principal.

The price of the farm is arrived at by having a competent appraiser estimate what the farm would sell for on the market at the time of transfer and also what would be its long time or normal value, based on the productivity of the farm and the long time average prices of farm products. The normal value is used if it is less than market value. This is the situation assumed in our illustrative case.³

The land contract provides that the son is to pay the father annually at least the equivalent of one half the net farm income and keep up the taxes and insurance. He can pay more if he desires. Net income is defined as gross farm income minus expenditures for taxes, insurance, hired labor, machinery, feed, fertilizer, and livestock purchased. Gross income is estimated at \$4,500 and net income at \$3,000. This arrangement not only protects the son against the danger of not being able to meet the payments but, in itself, tends to adjust the parents' income to changes in their cost of living since this and

farm income are affected similarly by changing price levels.

The son buys for cash the livestock and equipment which the father has on the farm, thus avoiding the losses of sale and repurchase of these items. The value of these chattels is assumed to be \$8,000. The father uses the proceeds of this sale to buy bonds or stocks or to establish a savings account. The purpose of this fund is to provide emergency income in years of low farm income and consequent low payments by the son or at times when the parents have extra expenditures of any kind. This gives the security needed by the parents even while the son is protected against payments he cannot meet in bad years. In case the father and son have been operating the farm as a partnership for some years and the son has already bought out the father's interest in the livestock and equipment, the father is assumed to have already used the receipts to establish this savings fund.

Another method of establishing this fund would be for the father to borrow on a long-term mortgage to the Federal Land Bank or other commercial institution before selling the farm to the son. The proceeds would be used for the savings fund and annual payments on the mortgage would be made out of the sons' regular payments. Such a mortgage might also, in some cases, be needed to build a separate house for the parents. In our illustrative case, however, no commercial mortgage is assumed at this stage.

It is assumed that one parent would live about 10 years and the other 15 to 20 years after retirement. For the first ten years, then, the parents could count on an average annual income of at least \$1,500 or \$125 per month from the son. It would be much less than this, of course, in years of low farm income. This might be supplemented by income from part-time work on the farm or elsewhere which the father felt able to do. It could also be supplemented by withdrawals from the savings fund to whatever extent needed, within the limits of the fund.

By the end of 10 years the son would have paid the parents a total of at least \$15,000, of which \$6,500 would be interest and \$8,500 payment on principal. The son would thus have an equity of over 40 percent and title would now be transferred to him. With this much equity the son could easily refinance the farm with a commercial mortgage, if

³ If normal value is higher than market value the choice would depend on the relative strengths of the son's desire to buy the home farm, the desire of the parents and other heirs to keep the farm in the family, and the importance to each party of a sale at the time proposed. A compromise between the two appraised values would also be possible.

desired, so he would no longer be dependent on the use of family capital.

Since it has been assumed that this date coincides with the death of one parent, the financial arrangements at this point could be adjusted to the desires of the surviving parent and the other heirs. Several plans would seem about equally satisfactory and the choice would depend largely on personal reactions.

The remaining \$11,500 due on the farm could simply be covered by a mortgage to the surviving parent or to the estate instead of the previous land contract. The payments could remain as before or be changed to a fixed amount each year. Or, the son could borrow part of the amount commercially, setting up another savings fund for the parent, and paying the rest annually. Finally, the son could borrow the whole amount and allow the parent to use it in any way he or she chose.

At this stage in the transfer process the surviving parent might find it desirable to apply the annuity principal to at least a part of the funds. It would be more appropriate now than at the time of retirement because (1) the annuity could be purchased commercially, if desired, without depriving the son of needed use of family capital, (2) if the son were to make these payments, his more secure financial situation would make it easier for him to make them regularly, and (3) the likelihood of unusual expenditures on the part of the parent or parents would be less, since travel and durable goods purchases would be less likely.

Summary

In summary, the illustrative situation here assumed is one in which a 65-year-old retiring farmer wishes to use his accumulated capital to help his son or son-in-law take over the home farm as an owner-operator. The son or son-in-law is able and desirous of doing this but has only enough capital to buy the father's livestock and equipment. Virtually all the father's savings are invested in the farm and chattels and the total is considered

to be enough to support the farmer and his wife during the rest of their lives.

Information obtained in the Michigan study indicates that, under these conditions, most retiring farmers tend to retain title to their farms and try to live on the rent of the land, since they assume that this is the way to get maximum returns. Frequently the farm is rented to a son who eventually comes to own it through inheritance or purchase from the other heirs after the parents' death. In the meantime, however, the son's future status is uncertain and he is deprived of the various benefits of ownership. The father also has a greater responsibility, which he may or may not want.

By selling the farm to the son at the time of retirement, however, and making proper arrangements for annual payments by the son, the parents can assure themselves of an income each year at least as great as the rent would have been and usually more. In addition, it will be possible for the parents to use the full capital value of the farm during their life-time if it is needed.

To assure maximum satisfaction to the parents and the purchasing son, and at the same time not to prejudice the interests of other heirs, the chief criteria in making the transfer are: (1) sale of the farm to be for not more than normal value; (2) annual payments to be as large as possible but with a flexibility which adjusts these payments to the son's income each year—this flexibility to continue at least until the son has an equity sufficient to allow commercial refinancing; and (3) a portion of the value of the farm and chattels to be put into a savings account of some kind from which the parents can draw for additional income in years of low payments by the son or of unusual expenditures by the parents. If at the parents' death any of the capital is unused, this can be distributed among all the heirs, including the purchasing son, in whatever way the parents choose.

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Holding Company Integration: Several Comments

PROFESSOR Anderson's article¹ contains an outline of the legislative and judicial history of holding-company integration, and is essentially a "legal" presentation in its construction and analysis. Before someone looks too quickly for controversy and thus mistakes the purpose of these comments, I should say that I do not object to or somehow look down on a "legal" presentation. Indeed, no one can very well assert that the Holding Company Act is understandable apart from its statutory construction, case-by-case administration, and judicial interpretation. These are obvious parts of the political or social context in which this Act, like other restrictive and corrective measures of a liberal-type government, must operate. Yet a legal discussion does not cover all the essentials of the integration problem.

Related to the article in question, these comments are additive rather than critical. They deal briefly with production economies and optimum divisions of properties and markets between systems, a strange and certainly unexplained interest of the Securities Exchange Commission in competition between gas and electric service, the meaning of local management, and some relations of integration work to earnings and price control. This is a description of some ways in which integration of public utility properties is pulled up short of its highest efficiency, and legislative and administrative action lacks a firm focus on production, distribution, and price regulation of service. That is, the work of the SEC is excellent but not beyond improvement.

Knowing the moderation in all American legislation and public administration, some may see the limitations of SEC control as nothing more than an old story in a new setting. True; but we have a way of forgetting that our political intentions are frequently better than the results, and we even have a way of seeing more than can be identified. Reading in the North American case that holding companies were "polluting the channels of interstate commerce" and that "Congress . . . had power under the commerce clause to attempt to remove these evils" and seeing further reinforcement of

these views in the American Power & Light opinion, some persons may get the impression that everything is right and most efficient in the control. Such judicial writing thrills the liberal heart and gives strength to future attacks on financial tyrants and scoundrels (real or somewhat imaginary), but does not reveal the shortcomings of the liberal political mind. Most of all it does not show how regulatory measures, starting as furious assaults, become complacent, methodical, and even plodding affairs in the hands (i.e., minds) of administrators. The position of the administrator is largely clerical (often in some big way) and the SEC, despite its persistence and skilled staff, cannot get away from this fact—cannot depart readily from available facts and its most evident legal position, taking chances and seeking efficiencies beyond what is clearly assured or seems comparatively easy to get.

The first point: regulation under the Holding Company Act does not effect all possible economies of production. Yet, as a credit to aroused legislators in 1935 and to an exacting and unparalleled regulatory effort by the SEC, some significant economies are evident. Large reductions of management fees, elimination of unnecessary holding companies, competitive bidding for securities, restrictions on capitalization changes of both operating and holding companies—all are sources of important economies. Eliminating such "other businesses" as ice manufacturing, real estate subsidiaries, and sizable oil operations even if they are profitable in themselves, the Commission clearly is attentive to economic utility operations. And the one-area rule, calling for compact and interconnected properties, is concerned with production economies and is a rejection of the financier's interest in scattered holdings.

Despite these economies the SEC—and this is the primary point—does not seek specifically the most economic operating limits for each holding-company system. Application of the one-area rule is not an intensive search for optimum systems. If the Commission were interested in such optimums, it would re-allocate some divisible operating units. Perhaps the divisible units can be conceived as market areas with their complexes of equipment, though some divisibility is possible in terms of particular equipment

¹ William H. Anderson, "Public Utility Holding Companies: The Death Sentence and the Future," *Journal of Land & Public Utility Economics*, August 1947, pp. 244-54.

items such as generating stations. At any rate no divisible unit is allocated to one firm when it can be handled more economically elsewhere. The marginal costs of one firm, measured according to these large but divisible units, are not higher than the marginal costs of the several adjacent firms. Large-sized units can affect an equation of marginal costs: if a divisible unit is kept in one firm, the marginal cost of this firm may be above the marginal cost of the other company; and if this unit is shifted, the marginal cost relation may be reversed. In such a case the unit is allocated where its costs of operation are lowest. None of the Commission's reasoning follows this sort of economic pattern—not even in the largest integration cases. At best the economies of integration are figured by adding or subtracting whole corporate units. Consequently the minimum-cost levels of regulated prices are not achieved, and consumers will pay indefinitely for this deficiency in integration.

Several kinds of arguments can be made against an optimum arrangement of individual operating firms. For one thing the SEC does not have explicit authority to establish optimum operating limits, though the Act (Sec. 2a, 29) defines an integrated electric system in physical plant and cost terms. In any case the Commission does not seek judicial interpretation in this connection. Some may wish to say that the Commission leaves redistribution of operating properties to the state commissions—or wants to avoid intrusion on the authority of these commissions. Yet, as noted under the next criticism, the SEC forced (indirectly through holding companies) some operating firms to give up either gas or electric operations. Perhaps each operating firm is considered a close approximation of its optimum, though this argument presupposes that past consolidations and property acquisitions were guided altogether or primarily by production economies and that they could not be improved in the light of later technical changes. Or the Commission may be excused because determination of an optimum firm is difficult. No one, to be sure, can prescribe exactly the most economic boundaries for utility firms, but this does not mean that some redistribution of divisible property units is not certain or likely to contribute immediate or long-run economies.

A further question of optimum allocation

concerns the "additional" operating systems under the one-area rule. (In fact the one-area rule was set up to deal with the location of operating systems that were under a holding company.) Among electric companies most of the evidence is about physical interconnections of two or more operating systems. These interconnections apparently are considered evidence of the "substantial economies" that are required before additional systems are allowed. Yet some of the interconnections, built to assure more continuous service and to obtain diversity economies, would exist even if the firms were independent. That is, interconnection economies cannot be counted altogether or even predominantly among the economies of holding-company control. The SEC makes no apparent effort to distinguish between interconnection economies of independent and associated operating companies. And, as a further fact, I do not know of any cost study by the Commission that shows changing managerial economies as the scope of holding-company control expands—that shows something about the most economical limits of holding-company management.

The second point: the SEC has a policy of competition between gas and electricity that indicates only a limited understanding of competitive pricing. In the Holding Company Act an integrated electric system is defined separately from an integrated gas system. Giving a literal interpretation to this distinction, the Commission does not permit a holding company to control both gas and electric service in a market unless "substantial" joint economies can be demonstrated. Even composite operating companies are required to dispose of either electric or gas property if they remain under holding-company control. A preference for a competitive policy is not stated openly, and nothing is said at all about the way in which the competition is expected to work and to affect prices.²

This somewhat covert choice of competition, which is made presumably as a means of price and service control, rejects possible integration economies that can be obtained from joint management of the two services. The Commission insists on substantial economies and does not seek any economies of

² Cf., *Re The North American Co.*, 11 S.E.C. 194, 217 (1942), *Re The North American Co.* (S.E.C.), Holding Co. Act Release No. 5707, p. 6 (April 1945).

electric-gas operations. Nor is attention given to the fact that separate electric and gas firms are unlikely to engage in price competition, that the rivalry may be confined largely to advertising and salesmanship. Nor is the low substitution rate for some uses and the slow (time) substitutability in other uses recognized. Instead, discriminatory pricing, associated with the differences in substitution, may be a more likely result (as I explain elsewhere³) from this policy than general price and earnings control. In any case, a new, quite aggressive regulator of public utilities shows a surprising and simple faith in competition while old, even generally-inept commissions lost such faith years ago. Apparently a universal respect for competition dies slowly in the American heart.

A third fact: the objective of local management, designed to bring the financiers closer to consumers and apparently expected to improve opportunities for state if not municipal control, is something of an misnomer. The SEC regularly voices approval of local management as a criterion of geographic integration, and speaks out strongly in one case against "hegemonies of holding-company control."⁴ Integrated systems have more restricted limits than do their predecessors, and holding companies and their operating firms are more often confined to single states than they formerly were. Yet the Commission does not limit severely the size of all systems, and try to keep each integrated system within a single state.

Two cases indicate some extraordinary limits of integration that are far removed from any sensible definition of local management. One of these, the Central and South West Utilities case, concerns five former Insull companies that operate in Oklahoma and Texas.⁵ The staff of SEC proposed five separate systems, and at first the Commission chose a two-system division. Later the Commission, considering additional technical evidence about interconnections, allowed all five operating firms to be controlled by the holding company.⁶ Thus, a "huge crescent" of property, having an east-west length over 1200 miles and a north-south length of about 600 miles, is in one holding-company system.

In the American Gas & Electric case a holding company was allowed to retain a group of interconnected companies that operated through seven states, that ranged from the Virginia-North Carolina line to Lake Michigan and covered an operating area of about 90,000 square miles.⁷ Saying that such a system approached the "maximum size . . . consistent with the standards of localized management, efficient operation and effectiveness of regulation," the Commission went on later to approve the addition of another Indiana operating system.⁸

How can such cases or even lesser examples of integrated systems be reconciled with the local-management standard? The law clearly says "local" rather than "state" or "regional" management. No one can very well conceive of each locality as an operating and managing unit in the electric industry. Such an arrangement clearly takes the industry back to the years before 1915, and disregards technical achievements and economies of the central station and long distance transmission. A literal interpretation of local management is more a tribute to 19th Century liberalism than a sensible, workable limit of control today. Congress scarcely meant local management in reality, and the SEC certainly does not bring holding-company management down to a neighborly position with consumers. In any literal sense the standard of local management is a statutory and administrative fiction.

Perhaps localized management can be interpreted to mean the smallest possible system that is consistent with optimum operations. If so, the economies between operating companies (or divisible operating units) are examined to determine what part is necessarily dependent on the continuation of holding-company control and what part is likely to remain after common control is broken up. Interconnection economies in the electric industry, as noted beforehand, are not entirely a matter of holding-company management. Yet the Commission is impressed with evidence on physical interconnections, and is willing to put large amounts of operating property under common management when

³ *Economics of Public Utilities* (New York: Rinehart, 1947), p. 208.

⁴ *Re Cities S. P. & L. Co.* (S.E.C.), Holding Co. Act Release No. 4489, p. 37 (August 1943).

⁵ *Re The Middle West Corp.* (S.E.C.), Holding Co. Act Release No. 4846 (January 1944).

⁶ *Re The Middle West Corp.* (S.E.C.), Holding Co. Act Release No. 5606 (February 1945).

⁷ *Re American G. & E. Co.* (S.E.C.), Holding Co. Act Release No. 6333 (December 1945); *Re American G. & E. Co.* (S.E.C.), Holding Co. Act Release No. 6639 (May 1946).

⁸ *Re American G. & E. Co.* (S.E.C.), Holding Co. Act Release No. 7054 (December 1946).

working relationships are already fixed. Existing operations apparently are more important than is a diffusion of managerial authority.

As a further possibility, localized management may be associated with opportunities for price and earnings control. The size of an integrated system is not supposed to impair the effectiveness of regulation. Being quite serious about regulatory opportunities, the SEC can restrict holding-company systems as closely as possible to single states. Yet neither the American Gas & Electric opinion, allowing a seven-state system, nor any other opinion (insofar as I know) gives even moderate weight or more than passing comment to effective price control. Either the Commission is not concerned with earnings control at all, or it expects (prefers?) control by the Federal Power Commission as large systems are approved. At any rate the meaning of local management has no clarity in integration proceedings.

The fourth point: divestments and exchanges of properties are not related to the accounting and fair return controls that affect the prices of utility services. The SEC does not hold property sales to reasonable costs, but instead allows sales at more than the original or book costs. It has a market-price standard of property valuation while most other commissions, wanting to minimize total operating costs, use first original costs or otherwise try to avoid past capitalizations of excess returns. More attention is given to "arm's length" dealing then to the amount of capitalization. Good bargains and equities of security holders are more important than possible translations of high property values into consumer prices. In fact this is only one way in which the Commission emphasizes fair and equitable treatment of security

holders as integration and recapitalization work proceeds.

Paying more than the first original cost for property, a public utility firm records the difference in an adjustment account. Such sums, arising in open and commission-controlled transactions, can be amortized by charges to operating expense. These amortization charges either reduce the earnings available for dividends, or contribute to cost increases on which higher rates are based. The divestment policy of the SEC can lead obviously to higher consumer prices, but the Commission shows no attention for this possible consequence.

Compared with other business controls, the Holding Company Act and administration of it are remarkable achievements. This uncommonly venturesome law and a persistent application of it gives a rare experience in American business reorganization—such an unparalleled experience that I hope a critical discussion is not considered a sign of ingratitude. Seeing so much publicity of the death clause or reading the opinions of the Supreme Court, some people may expect something quite beyond the traditionally moderate, comfortable working limits of public administration. Yet statutory powers and judicial approval for corporate integration, which are described by Professor Anderson, do not presuppose the best conceivable reorganization of systems. The most efficient, carefully reasoned, comprehensive social limits of integration are not achieved, and while these shortcomings may be considered either tolerable or unfortunate they still are limitations.

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Synthetics versus Singapore

AMERICA'S number one import before the war was rubber. Nearly all of it was shipped in from countries of Southeast Asia, primarily British Malaya and the Netherlands Indies. America thus gave them their chief market for their largest export. A rubber link stretched half way around the globe to connect these Asiatic countries with the United States.

The war cut this link abruptly, severing America from its source of rubber and Southeast Asia from its markets. Naturally great hardships ensued at both ends of the broken link. World reactions became paradoxical: for while America strained to develop a gigantic rubber industry, and made rubber from petroleum, the Orient produced petroleum from rubber. The natural rubber crop

had, in fact, become such a white elephant that the natives turned to the cultivation of food crops instead.

In a little more than two years of war, America, the greatest rubber importer of the world, became its greatest producer. It can now put out over a million tons a year, nearly twice the amount it consumed annually before the war. Russia, Germany, and even Japan also developed synthetic rubber industries, though none of them comparable to ours in size. American synthetics account for most of the increase in the world's potential rubber production.

Although consumption has also increased because wartime necessities prompted many new uses for rubber, we can nevertheless already look forward to 1950 when the world will be able to produce twice as much rubber as it can use. Consumption may reach a million and a half tons a year, but the output of synthetics alone or of the natural product alone may each come up to that amount.¹ There will be another rubber crisis. The wartime crisis was a rubber shortage; the next crisis, a rubber surplus.

When Singapore, the crude rubber capital of the world, fell to the Japanese, a number of small American towns such as Port Neches, Texas, and Institute, West Virginia took its place. These towns manufacture the synthetics. They are the hub of an enormous new industry in which three quarters of a billion dollars are invested. Such an investment is not large for a war project, however, for it would pay only three days of the nation's war expenses, or a third of the cost of developing the atom bomb.

Over ninety percent of these investments were made by the United States Government as a war project. The remainder was made by private companies. The synthetic rubber plants themselves, however, have been run by private companies on a contract basis for the government.² These plants may now go on the block for public sale as surplus war assets. The government invested a large part of its rubber budget in power plants, warehouses, and other installations not directly engaged in synthetic rubber production. These installations, which may be converted to other uses, may find ready buyers. Private interests are not at all anxious to buy

the processing plants outright, however, for they doubt that their production can compete with natural rubber on an open market. They doubt that these plants can match either the quality or the price of Southeast Asia's product.

America manufactures several different kinds of synthetic rubber, some of which are superior to natural rubber when used in articles requiring resistance to heat, chemicals or abrasion. These kinds should not compete seriously with natural rubber for they are almost a different product. One brand of pencils can compete with another, but pencils cannot compete with typewriters. These special synthetics represent little more than 15% of the total. Nearly 85% of American production is in the "general-purpose synthetic" familiar to motorists in wartime tires. Automobile tires have always consumed the greater part of all rubber produced, and during the war years accounted for over 90% of the total rubber consumption of the United States.³ The general purpose synthetic is, however, usually not so satisfactory as natural rubber. For one thing, a synthetic tire is a poor conductor of the heat generated by friction on pavement. This causes differences in temperature and expansion between various parts of the tire which then begins to crack. The future may, of course, see improvements made in the quality of the synthetic product.

TABLE I.—U. S. PRODUCTION OF SYNTHETIC RUBBERS (long tons)

Year	General Purpose	Special Purpose*			Total
		Butyl	Neoprene	Buna-N	
1942	3,721	23	8,956	9,734	22,434
1943	182,259	1,373	33,603	14,487	231,722
1944	670,268	18,890	56,660	16,812	762,630
1945	719,404	47,426	45,672	7,871	820,373
1946	613,408	73,114	47,766	5,738	740,026

* Butyl, which is used primarily for inner tubes, is very frequently claimed as a general purpose rubber. Neoprene and Buna-N, which are gas and oil resistant, are used for fuel tanks, hoses, etc.

In February 1947, when the production and distribution of natural rubber was not

¹ United States Tariff Commission, *Rubber: War Changes in Industry Series*, Report No. 6, September 1944. p. 75.

² War Production Board, *Report of the Director of Rubber Programs to the War Production Board*, November 3, 1945 p. 5.

³ Cf., United States Department of Commerce, Office of Domestic Commerce, *Industry Report: Rubber*, March 1947.

¹ *Rubber Production and Importation Policy Hearings* before Subcommittee on Rubber, Committee on Banking and Currency, United States Senate, 80 Congress, 1 session, March 11, 1947. p. 82

yet back to normal and when trading was still governmentally controlled, the general service rubber cost eighteen and a half cents a pound, and natural rubber cost as much as twenty-five and three quarters cents a pound.⁵ In May, however, when a more or less free market began to operate and when production and distribution of natural rubber began to return to normal, its price immediately dropped to that of the synthetic. By June it was down to fourteen cents a pound at the New York Commodity Exchange. The *London Economist*, in September 1945, anticipating the competition of American synthetics, had already suggested to the Far Eastern rubber growers that they aim at a four-cents-a-pound production goal, and it wittingly suggested this in the face of rising prices and shortages of labor throughout the Far East. Further developments in synthetic production may, however, bring the price of American rubber down. Indeed, one official source has estimated that in the future it might cost only twelve cents a pound.⁶ But even that figure would not give it the upper hand in competition with the Orient on an open market.

The price of natural rubber has in the past fluctuated through a preposterous range, from less than three cents to nearly three dollars a pound. Southeast Asia had, after all, a monopolist's control of the price. The American synthetic rubber industry may be able to guarantee importers a stabilized price, but stability could also be achieved by simply maintaining a stockpile of natural rubber to suffer any fluctuations.⁷

Congress will consider these factors when it sets about to program the future of our domestic rubber industry. But these factors present only the domestic scene and are not sufficient. The background and prospects of natural rubber production must be considered.

The rubber plantations of Southeast Asia are divided nearly equally between European and native owners; but the natives maintain the lower production cost. For six years during the 1930's native planters in Netherlands India received less than four cents a

pound for their crop. During this same period their production nearly doubled. Meanwhile the European estates did not begin to make a profit even at a figure one hundred to three hundred and fifty per cent higher.

According to testimony before the Truman Committee in 1943, a pound of Malayan rubber grown by natives "certainly did not cost more than five cents on the average." In addition to this production cost, America

TABLE II.^a—PRODUCTION COSTS ON NATIVE AND EUROPEAN PLANTATIONS
(U. S. cents per pound)

Year	Netherlands India			Malaya Estates (all-in costs)	New York Price
	Natives		Estates (all-in costs)		
	Export (metric tons)	Income			
1931	89,000	2.80	6.90	5.61	6.20
1932	61,000	1.23	4.85	3.61	3.47
1933	116,000	2.53	4.24	4.34	5.95
1934	144,000	3.52	*	*	12.93
1935	145,000	3.76	13.60	12.31	12.37
1936	153,000	3.82	12.84	12.70	16.51

* In this year the U. S. dollar was devaluated and, on June 1, the International Rubber Regulation Agreement became effective.

also paid milling, packing and shipping charges amounting at the most to five cents a pound. Apparently then, native producers began to make a profit when rubber brought more than ten cents a pound in this country. The European rubber growers of Malaya, however, made a profit only when they got more than twelve cents a pound in this country—according to the International Rubber Regulation Committee.⁹ This apparently small difference of two cents a pound would in fact have meant a difference of more than twenty-five million dollars in our 1941 imports alone. Actually, the International Rubber Regulation Committee pegged the price at eighteen to twenty cents a pound.

This committee was composed of European representatives of the major rubber-growing

generally opposed to government stockpiles operated for economic purposes because it fears that they might effect, or be interpreted as, a governmental monopoly of trade. An international stockpile, however, could be operated to advantage.

⁹ Cf., War Production Board, *Special Report of Office of Rubber Director on Synthetic Rubber Program*, Appendix A, August 31, 1944.

^a *Ibid.*

⁵ *To Strengthen the Common Defense by Maintaining an Adequate Domestic Rubber-Producing Industry*, hearings before Subcommittee No. 3, Organization and Mobilization, Committee on Armed Services, United States House of Representatives, 80 Congress, 1 session, February 26, 1947, p. 776.

⁶ Cf., United States Tariff Commission, *op. cit.*, p. 11 ff.

⁷ The Critical Materials Stockpiling Act of July 23, 1946, provides a primarily strategic measure for times of national emergency. The United States Department of State is

countries. Its purposes were to "adjust supply to demand" and to maintain an "equitable price" which was "reasonably remunerative to efficient producers." Toward these goals, it limited the "permissible exportable amount" of Southeast Asia's rubber. Each rubber-growing country was given an annual export quota that it was not to exceed, under penalty of "destruction and confiscation" of the crop.¹⁰ These quantitative restrictions were, however, applied equally to native and European planters, irrespective of their relative efficiency of production. Had the Committee restricted exports by eliminating the less efficient European plantations the total profit to Southeast Asia might have been greater and the cost of rubber less. Native production would undoubtedly have expanded like a rising balloon, but it was held down by this system of restrictions. The present revolts in Netherlands India and French Indo-China will probably strip the European plantations of much of the protection this system gave them from native competition.

Even a glimpse of this tropical scene presents the fact that America has interests at stake in any rubber program Southeast Asia undertakes. It may cost America millions. Therefore the United States cannot neglect Southeast Asia when it embarks on any program for its own rubber enterprise. It may cost the Orient more. We also see that the American product will probably be unable to hold its own against Southeast Asia's crop in open competition. But even if it could, we must still consider a sound economic reason for preferring to import natural rubber.

In British Malaya a pound of rubber is produced more efficiently, more easily, and more cheaply than a yard of cotton goods, whereas in America the reverse is true. Before the war, Southeast Asia imported nearly all of its cotton goods, just as America depended upon its imports for rubber. If the United States now insists on achieving self-sufficiency in rubber, it must kidnap some of its raw materials, capital, and labor from more efficient enterprises and deliver

them into the hands of the relatively less efficient production of synthetics—at the expense of its national wealth. If, however, America would simply continue to manufacture those goods which it can produce most efficiently, and trade with British Malaya for what it produces most efficiently, both parties to the trade will gain. Because America had to be self-sufficient in rubber during the war, Americans could not get all the gasoline and whiskey they wanted. Petroleum and alcohol had to be sent to Port Neches and Institute.¹¹ At the same time, of course, they could not sell any of their products to the rubber countries of the East. In time of war such sacrifices are inescapable; but with peace and a restored international trade we must look to successively higher levels of prosperity for ourselves and for our neighbors among the nations of the world.

The abject standards of living in the countries of Southeast Asia did not permit the natives to buy even the most efficiently produced American goods. Therefore those countries remained primarily producers of raw materials. America's imports from them always far exceeded its exports to them. In the prewar trade with British Malaya, for example, United States imports were worth ten to twenty times as much as its exports.¹² If those Asiatic countries should lose their number one market for their number one export, their standard of living will undoubtedly sink lower still. They have already lost markets for many of their other natural products. Gums, resins, and quinine are examples of markets lost to synthetic substitutes, while sizeable tea and coffee markets were forfeited to countries that were available to the Allies during the war. Furthermore, the hopes for increasing the economic stature of Southeast Asia lie primarily in industrialization and particularly in developing processing plants for their raw materials. The prospects for such programs would receive a serious blow when the raw materials themselves were faced with economic suppression. We shall sow famine in the Orient if we try

¹⁰ International Labour Office, *Intergovernmental Commodity Control Agreements*, Montreal, 1943. pp. 104-131.

¹¹ The quantity of raw materials required by the synthetic rubber industry is enormous. If all the plants which produce rubber from alcohol, as at Institute for example, were to produce to their capacity, they alone would consume three times as much industrial alcohol as the United States consumed annually for all purposes before the war. Synthetic rubber produced from alcohol is, however, signifi-

cantly more expensive than the same rubber produced from petroleum, as it is at Port Neches. Yet full scale production from petroleum is unfeasible because of America's limited petroleum reserves. Cf., United States Tariff Commission, *Industrial Alcohol: War Changes in Industry Series*, Report No. 2, January 1944. pp. 32-34.

¹² Cf., United States Department of Commerce, *Foreign Commerce and Navigation of the United States, Calendar Year 1939, 1940*, p. xv.

to harvest complete self-sufficiency for ourselves. If instead we promoted greater prosperity and higher standards of living among the peoples of Southeast Asia, American business might develop a hundred million new customers, and we might help some newly-established republics get on their feet.

The tropical plantations will soon be back to full production. In 1947, they should already exceed half of their peak year rubber output, a rather remarkable recuperation. This raises the question, "What should America do with its synthetic rubber industry then?"

The plants producing special synthetics obviously need not be abandoned, but a large number of the general purpose rubber installations may have to be converted or even scrapped. If they were abandoned, few Americans would become unemployed. The entire industry is highly mechanized and altogether employs twenty-five thousand people at the most. In Southeast Asia, on the other hand, at least a hundred times as many people are engaged in rubber cultivation. Importation of natural rubber would actually create more jobs for Americans in the production and distribution of goods for the markets created by American dollars in the Far East.

From an economic point of view, the United States Government can well afford to forsake its investments in this new industry. Many of the installations can be converted to other uses, and the value of the remaining ones is now much less than the original cost, for they have become partly obsolete, worn, and amortized. The real assets to be abandoned, therefore, are not so great. In the balance sheet of America's war budget, entries of tens of billions of dollars in the expenditures column have been written off by the single entry of "victory" in the receipts column. The same could be done with the synthetic rubber enterprise. It is, so to speak, only a drop in the budget.

A committee of representatives from key government agencies has recommended to Congress, however, a program which would require "continuously maintained in production and use, regardless of cost, sufficient synthetic rubber capacity to meet at least one-third of our rubber requirements, exclusive of requirements for special-purpose

rubbers." In order to support such a program, that committee recognizes the need of either governmental subsidization, or of requiring all rubber goods manufactured in this country to contain at least a certain amount of the synthetic. Both may be needed.¹³

The specific items of such a suggestion and also the general philosophy behind it are open to serious objections. Private companies may at their own expense develop an all-around synthetic that is superior in quality and price to natural rubber. Those companies could then compete with Southeast Asia. But if the government subsidizes the synthetics industry to enable it to compete with Southeast Asia, the public will have to foot the bill. This kind of support might also slow up the development of cost and quality improvements, and the subsidization itself may cost as much as the actual value of the existing investment. Government support of the industry would, moreover, profit those large manufacturers who already dominate the American rubber field, for they are the only ones who could take these installations off the government's hands. If, on the other hand, Congress were to substitute controls for subsidization and ordered the rubber industry to incorporate a certain amount of synthetics in finished rubber goods, there would be a paradox in present legislative policy. While Congress is trying to remove wartime controls, it would be initiating new ones.

The proposals seem primarily concerned with the strategic value of rubber in wartime. It is feared that renewed dependence upon the rubber of Southeast Asia might make us vulnerable in a possible World War III. This was made the specific and critical factor of the problem when President Truman, acting upon the recommendations of this committee, told Congress on February 7, 1947 that "it is the firm intention of the Government to maintain a synthetic rubber industry in the United States adequate to the minimum needs of national security." On that day the Inter-Agency Policy Committee on Rubber was dissolved and the Army-Navy Munitions Board officially took over as the top permanent rubber policy group in the government.

The strategic value of rubber in a possible World War III is, of course, for the Army and Navy to determine. If they decide that an assured supply is needed for military eventu-

¹³ Office of War Mobilization and Reconversion, *First and Second Reports of the Inter-Agency Policy Committee on Rubber*, July 22, 1946. p. 9 ff.

alities, they are justified in trying to assure it for themselves. But the entire economy of the United States should not be geared to military requirements. Instead of planning for war, the task of the nation is to drive all its energies toward the preservation of world peace. Certainly the promotion of international prosperity will lead to that goal. Three things must then be considered: (1) We must—toward guaranteeing free and secure enterprise—stabilize prices; (2) we must protect producers and consumers from

international cartels; and (3) we must—toward guaranteeing expanding enterprise—utilize to the maximum the resources of every country.¹⁴

Few solutions offered to this exemplary problem have taken into account the new factors which have sprung up since Pearl Harbor. American programs of reconversion are still generally regarded as solely an American affair. Often they cast only furtive glances at the Oriental scene or any other foreign one. War values are often retained as the only values. The opportunity to re-appraise our policies of the past is being neglected.

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¹⁴ An official international delegation called the Rubber Study Group, which met at Paris in July 1947, came to a decision on only the third of these considerations, and then only with regard to consumption. It concluded that "the problem of rubber can be permanently solved only by a sustained and continuous expansion of its use." Cf., United States Department of Commerce, Office of Domestic Commerce, *Industry Report: Rubber*, September 1947.

Public Utility Financing in the Fourth Quarter and a Summary of the Year 1947

Part I. Fourth Quarter Financing

PUBLIC utility security offerings in the fourth quarter of 1947 totaled \$991 million (\$917 million excluding common stock financing), the highest volume, by far, in recent years. The total figure represents a gain of \$248 million over the third quarter offerings and a gain of \$342 million over the last quarter of 1946.

It is to be noted that Table I, showing the public utility long-term issues sold publicly, included over \$9 million of principal amount of the extremely large American Telephone and Telegraph Company 2¾% convertible debentures. This amount represents the portion of the issue which was sold via the public exchanges. The bulk of the issue, as noted in Table II, was subscribed to by stockholders. Thus, the placing of the major part of the American Telephone and Telegraph debenture issue in Table II, gives the \$100 million Pacific Telephone and Telegraph Company 3½% debentures offered in October at 101.25% of par to yield 3.08% the top place with reference to size of any of the publicly-offered issues. The second and third largest issues were the \$75 million Pacific Gas and Electric Company 2⅞% of 1980 offered at 100.00% of par and the New England Telephone and Telegraph Company \$40 million debenture issue of 1982 offered

at 101.625% of par to yield 2.93%. The three largest issues were all offered in October.

The \$9 million of American Telephone and Telegraph Company 2¾% convertible debentures which were sold on the exchanges brought an immediate price of 108.50% of par which made the offering yield, calculated on this market price, dip to 1.82%. However, the convertible nature of the issue which will enable the holders to purchase after March 1, 1948 a stock selling presently at around \$150 for \$100 principal amount of debentures plus \$40 cash undoubtedly caused the premium market price offer which distorts somewhat the lowness of the offering yield. Excluding this convertible debenture issue, the Texas Electric Service Company \$7 million 2⅞% of 1977 had both the lowest offering yield and the lowest cost to company of 2.80% and 2.86%, respectively. This reflects somewhat the recent refinancing of this company by American Power and Light Company which indirectly aided the program materially with cash contributions made to Texas Utilities Company, the new holding company within the American system owning Texas Electric. However, it should be noted that the weighted averages for the quarter of offering yields and cost to company are higher than in any quarter of 1945 (with one exception when the offering yield was equal to

that of the third quarter of 1945), 1946, or of the first three quarters of 1947.

The range of the underwriters' spread was from .213% for the Texas Electric Service Company's 2 $\frac{3}{8}$'s to 1.99% for the South Jersey Gas Company 4 $\frac{1}{8}$'s of 1977. The weighted average of the underwriters' spread, however, was .646%, the highest of any quarter for the year. The weighted average of the estimated incidental expenses, on the other hand, was down to .542%. This was due in great part to the low percentages on the three large issues of the quarter, none being in excess of .40%. The

weighted average of the cost to company, the best indication of the true cost of borrowed funds, was 3.07%. This was not only the highest for the year, but also the highest since 1944.

Table II shows the public utility long-term debt issues sold privately in the fourth quarter of 1947. The twenty-five issues totaling \$454 million offered privately exceeds the total for the issues offered publicly. This total is well in excess of any previous quarter. The \$348 million of American Telephone and Telegraph Company 2 $\frac{3}{4}$ % convertible debentures subscribed for by the company's

TABLE I—SUMMARY AND ANALYSIS OF PUBLIC UTILITY LONG-TERM DEBT ISSUES OFFERED PUBLICLY, FOURTH QUARTER, 1947

Company and Issue (A)	Coupon Rate (B)	Principal Amount (C)	Maturity Date (D)	Month of Offering (E)	Offering Price (F)	Offering Yield (G)	Underwriters Commissions (H)	Proceeds to Company (I)	Estimated Incidental Expenses (J)	Net Proceeds (K)	Cost to Company (L)
	%	\$			%	%	%	%	%	%	%
Alabama Power Company											
First Mortgage	3 $\frac{1}{4}$	10,000,000	1977	October	100.766	3.21	.375	100.301	.875	99.52	3.28
Florin Water Company											
First Mortgage and Refunding	4	67,000	1969	October	99.00	4.07	a	a	a	a	a
Jersey Shore Gas & Heating Company											
1st Mtg. Sinking Fund Debentures	a	25,000	a	October	100.00	a	a	a	a	a	a
Metropolitan Edison Company											
First Mortgage	3	4,500,000	1977	October	101.39	2.93	.58	100.81	1.111	99.70	3.02
New England Telephone & Tel. Co.											
Debentures	3	40,000,000	1982	October	101.625	2.93	.806	100.809	.381	100.43	2.98
Pacific Gas & Electric Company											
First and Refunding Mortgage	2 $\frac{3}{4}$	75,000,000	1980	October	100.00	2.88	.45	99.55	.828	99.22	2.91
Pacific Telephone & Telegraph Co.											
Debentures	3 $\frac{1}{2}$	100,000,000	1987	October	101.25	3.08	.85	100.40	.339	100.06	3.12
South Jersey Gas Company											
First Mortgage	4 $\frac{1}{4}$	4,000,000	1977	October	102.17	4.00	1.99	100.18	1.313	98.87	4.19
Texas Electric Service Company											
First Mortgage	2 $\frac{3}{4}$	7,000,000	1977	October	101.51	2.80	.213	101.297	.929	100.37	2.86
Texas Power & Light Corporation											
First Mortgage	3	8,000,000	1977	October	100.99	2.95	.36	100.63	.875	99.76	3.01
Associated Telephone Company, Ltd.											
First Mortgage	3 $\frac{1}{4}$	6,000,000	1977	November	101.86	3.03	.771	101.089	.925	100.16	3.12
California Water Service Company											
First Mortgage	3 $\frac{1}{4}$	1,500,000	1975	November	103.50	3.06	1.171	102.329	1.800	101.53	3.17
Consolidated Edison Co., of N. Y., Inc.											
First and Refunding	3	30,000,000	1972	November	101.05	2.94	.63	100.42	1.027	99.39	3.04
Portland (Ore.) General Electric Co.											
First Mortgage	3 $\frac{1}{2}$	6,000,000	1977	November	103.00	3.34	.919	102.081	1.250	100.83	3.46
Public Service of Indiana, Inc.											
First Mortgage	3 $\frac{1}{4}$	15,000,000	1977	November	101.625	3.04	.545	101.080	.648	100.43	3.10
Wisconsin Public Service Corp.											
First Mortgage	3	4,000,000	1977	November	100.75	2.96	.540	100.210	a	a	a
American Telephone & Tel. Co.											
Convertible Debentures (b)	2 $\frac{3}{4}$	9,114,100	1957	December	108.50c	1.82	a	a	.540	a	a
Appalachian Electric Power Company											
First Mortgage	3 $\frac{1}{4}$	28,000,000	1977	December	100.50	3.10	.40	100.10	.579	99.52	3.15
Central Maine Power Company											
First and General Mortgage	3 $\frac{1}{4}$	4,000,000	1977	December	102.91	3.10	a	a	a	a	a
Central Power and Light Company											
First Mortgage	3 $\frac{1}{4}$	6,000,000	1977	December	101.93	3.15	.442	101.488	.605	100.88	3.20
Cleveland Electric Illuminating Co.											
First Mortgage	3	20,000,000	1982	December	101.08	2.95	.50	100.58	.560	100.02	3.00
Delaware Power and Light Company											
First Mtg. and Collateral Trust	3 $\frac{1}{4}$	10,000,000	1977	December	101.75	3.04	.72	101.03	.750	100.28	3.11
George Power Company											
First Mortgage	3 $\frac{1}{4}$	10,000,000	1977	December	101.42	3.30	a	a	a	a	a
TOTAL OR WEIGHTED AVERAGE		398,206,100			101.24	2.99d	.646d	100.391d	.542d	99.85d	3.07d

(a) Information not available

(b) This portion of issue sold to public by direct offering on the Exchange. An additional \$348,418,500 principal amount of this issue totaling \$357,532,600 sold to stockholders.

(c) Sale price of majority of issue on the Exchange.

(d) Exclusive of issues for which information is not available.

TABLE II—SUMMARY AND ANALYSIS OF PUBLIC UTILITY LONG-TERM DEBT ISSUES OFFERED PRIVATELY
FOURTH QUARTER, 1947.

Company and Issue (A)	Coupon Rate (B)	Principal Amount (C)	Maturity Date (D)	Month of Offering (E)	Offering Price (F)	Offering Yield (G)
	%	\$			%	%
American Water Works Co., Inc. Collateral Trust Bonds.....	3	15,000,000	1957	October	100	3.00
Derby Gas & Electric Corporation Collateral Trust Debentures.....	1	5,031,000	1957	October	1	1
Duke Power Company First and Refunding Mortgages.....	2.65	40,000,000	1977	October	1	1
El Paso Natural Gas Company First Mortgage.....	3	15,000,000	1966	October	1	1
St. Joseph Light & Power Company First Mortgage.....	2.78	990,000	1976	October	101	2.82
Wilkes-Barre Transit Corporation First Mortgage.....	4½	435,000	1967	October	1	1
California Water & Telephone Co., First Mortgage.....	3	1,000,000	1971	November	98.50	3.09
Clifton-Forge-Waynesboro Tele. Co., First Mortgage.....	2½	500,000	1972	November	1	1
Indiana Gas & Water Company, Inc. First Mortgage.....	3	990,000	1972	November	100	3.00
Oklahoma Natural Gas Company First Mortgage.....	2½	5,000,000	1964	November	101.55	2.76
Arkansas-Missouri Power Company First Mortgage.....	3½	1,000,000	1977	December	1	1
Bangor Hydro-Electric Company First Mortgage.....	3	1,000,000	1977	December	1	1
Birmingham Electric Company First Mortgage.....	3½	1,000,000	1977	December	99.52	3.15
Coast Counties Gas & Electric Company First Mortgage.....	3	900,000	1980	December	100	3.00
Great Falls Gas Company First Mortgage Sinking Fund.....	3	550,000	1967	December	100	3.00
Greenwich Gas Company First Mortgage.....	3½	200,000	1	December	1	1
Montana-Dakota Utilities Company First Mortgage.....	3	500,000	1970	December	97.98	3.12
Montana-Dakota Utilities Company First Mortgage.....	3½	1,500,000	1970	December	100	3.13
American Telephone & Telegraph Co., Convertible Debentures.....	2½	348,418,500	1957	December	100	2.75
Peninsular Telephone Company First Mortgage.....	3½	1,500,000	1967	December	1	1
Richmond (Ind.) Home Telephone Co., First Mortgage.....	3	1,000,000	1	December	1	1
Southwestern Public Service Company First Mortgage.....	3	9,700,000	1977	December	100.50	2.97
Teluride Power Company First Mortgage.....	3½	1,250,000	1972	December	1	1
Tidewater Telephone Company 20-Yr. Sinking Fund Bond.....	3½	700,000	1967	December	1	1
Western Light & Telephone Co., Inc. First Mortgage.....	3½	1,250,000	1977	December	100.50	3.10
TOTAL OR WEIGHTED AVERAGE.....		454,414,500			100.03 ^a 100.29 ^a	2.78 ^b 3.03 ^a

(1) Information not available.

(2) This portion of total issue of \$357,532,600 sold to stockholders; remainder listed in Table I, having been sold on Exchanges. See Footnote (B) Table I.

(3) Exclusive of issues for which information is not available.

(4) Weighted average, excluding American Telephone & Telegraph Company convertible debentures.

stockholders was by far the largest issue. This issue is also the largest issue of this type ever offered in this manner: \$9 million of the remaining \$12 million authorized for this issue were sold on the exchanges and were listed in Table I. The second largest issue offered privately was the Duke Power Company 2.65% First and Refunding Mortgage \$40 million issue of 1977. Data available for thirteen of these twenty-five privately-placed issues give a weighted average for offering yield of 2.78%. Again, the statistics are weighted heavily by the size of the American Telephone and Telegraph Company convertible debentures which, if excluded, change the weighted average of offering yield to 3.03%, reasonably close to the weighted average of offering yield of publicly-offered issues of 2.99%.

Table III gives a summary and analysis of

preferred stock issues offered during the fourth quarter of 1947. Thirteen issues totaling some \$62 million are shown. In volume, this is low compared to the second and third quarters of 1947, but it is practically equivalent to the fourth quarter of 1946. Offering price data are not available for the two issues placed privately. However, the remaining eleven issues give a weighted average of offering yield of 4.68%. This compares unfavorably with the weighted averages of offering yields of the first three quarters of the year; 3.84%, 3.86%, and 4.25%, respectively. If anything, this highlights the slow, but unmistakably sure increase in the cost of capital to the utility industry. Events of the past several months in the interest rate field have served only to increase the anxiety of those responsible for additional utility financing.

TABLE III—SUMMARY AND ANALYSIS OF PUBLIC UTILITY PREFERRED STOCK ISSUES OFFERED, FOURTH QUARTER, 1947.

Company and Par Value of Issue (A)	Dividend (B)	Principal Amount (C)	Month of Offering (D)	Offering Price (E)	Offering Yield (F)
		\$		\$	%
El Paso Natural Gas Company (Par 1) ²	4 3/4%	2,500,000	October	1	1
Idaho Power Company (Par \$100).....	4%	1,000,000	October	102	3.92
Kentucky Utilities Company ³ (Par \$100) ⁴	4 3/4%	13,000,000	October	100	4.75
California Oregon Power Company (Par \$100).....	4.70%	4,200,000	November	100	4.70
Clifton-Forge-Waynesboro Tel. Co. (Par \$100).....	4 3/4%	175,000	November	100	4.50
Seattle Gas Company (Par \$50).....	6%	290,000	November	50	6.00
Western Light & Tel. Co., Inc. (Par \$25).....	5%	250,000	November	28	4.46
Appalachian Electric Power Co. ⁵ (Par \$100) ⁶	4.50%	7,500,000	December	100	4.50
Associated Telephone Company (Par \$20).....	5%	3,000,000	December	21	4.76
Gulf States Utilities Corporation (Par \$100) ³	\$4.50	5,000,000	December	1	1
Indianapolis Power & Light Co., (Par \$100).....	5%	4,000,000	December	102	4.90
Mutual Telephone Co., Honolulu (Par \$10) ³	4.80%	1,500,000	December	10	4.80
Southern California Edison Co., (Par \$25).....	4.88%	20,000,000	December	26.25	4.65
TOTAL OR WEIGHTED AVERAGE.....		62,415,000			4.68 ⁴

(1) Information not available.

(2) Privately placed.

(3) Offered to stockholders through subscription rights.

(4) Exclusive of issues for which information is not available.

(5) Offered in exchange for preferred outstanding.

(6) Unexchanged or unsubscribed shares offered publicly.

Table IV lists the public utility common stocks offered during the fourth quarter of 1947. Aggregating almost \$74 million, calculated at offering price, the total volume of common stock financing has for the first time in the year exceeded the volume of preferred stock financing. Despite the so-called paucity of equity capital in the market today, additional common stock financing is absolutely necessary if the utility industries are to carry out their huge expansion plans and at the same time maintain the capital structure standards—percentagewise—set up by the regulatory commissions, especially the Securities and Exchange Commission. The problem will be further complicated by the holding companies' inability to continue to pour cash contributions into the equity of wholly-owned subsidiaries as has been done in the past several years, especially with the rising costs and inflexible rates lowering the net income of operating companies of the various holding company systems. The \$23.5

million American Water Works Company, Inc. \$5 par offered at \$8.00 was the largest issue. The largest issue of a wholly-operating company was the \$20.8 million Duke Power Company \$10 par offered for subscription by stockholders at \$82.50.

Part II. Summary of the Year 1947

Total public utility financing, exclusive of short-term borrowing and common stock issues, was \$2,910 million for the year. This exceeds substantially the volume of public utility financing in recent years. This represents an increase of 44.5% over 1946 and an increase of 30.2% over 1945, the previous high. With common stock issues included, the total volume topped the \$3 billion mark as shown in Table V.

Publicly-offered, long-term bonds total \$1,841 million, which is more than the \$1,422 million offered in 1946 and the \$1,777 million offered in 1945. Privately-offered, long-term bonds totaled \$740 million which is

TABLE IV—PUBLIC UTILITY COMMON STOCKS OFFERED DURING THE FOURTH QUARTER, 1947

Company (A)	Principal Amount (B)	Month of Offering (C)	Offering Price (D)
	\$		\$
American Water Works Company, Inc. (Par \$5) ¹	23,496,552	October	8.00
Carolina Telephone & Telegraph Company (Par \$100) ²	2,125,000	October	100.00
Colorado Central Power Company (Par \$10) ²	295,500	October	30.00
East Coast Electric Company (Par \$10).....	288,750	October	19.25
Idaho Power Company (Par \$20).....	3,350,000	October	33.50
Iowa Public Service Company (Par \$15) ²	1,730,390	October	15.75
Southern Colorado Power Company—(No Par) ²	283,195	October	9.50
California Oregon Power Company—(Par \$20).....	945,000	November	22.50
California Water Service Company—(Par \$25).....	511,600	November	32.875
Carolina Power & Light Company ² —(No Par) ²	2,734,685	November	30.00 ² 30.50 ³
Central Louisiana Electric Company, Inc.—(Par \$10) ²	293,250	November	22.50
Derby Gas & Electric Corporation—(No Par) ²	828,590	November	19.00
Duke Power Company—(Par \$10) ²	20,832,240	November	82.50
Indianapolis Power & Light Company ² —(No Par) ²	4,717,922	November	22.00
Northwestern Public Service Company ² —(Par \$3) ²	799,500	November	9.75
Southern New England Telephone & Tele. Co.—(Par \$100) ²	9,931,700	November	100.00
Greenwich Gas Company—(Par *) ²	102,622	December	14.00
Kentucky Water Service Company—(Par \$5) ²	235,000	December	5.00
TOTAL.....	73,501,496		

(1) Calculated at offering price.

(2) Offered to stockholders through subscription rights.

(3) Unsubscribed shares offered to public.

(4) Offered to holding company's and subsidiaries' stockholders.

(5) Privately placed.

* Information not available.

TABLE V—VOLUME OF PUBLIC UTILITY FINANCING BY QUARTERS, 1947*

Quarter	LONG-TERM BONDS ¹				Serial Offerings ²		Preferred Stock ²		Common Stock ²		Total Volume
	Public Offering		Private Offering								
	Mil-lions	% of total	Mil-lions	% of total	Mil-lions	% of total	Mil-lions	% of total	Mil-lions	% of total	Mil-lions
1st.....	336	75	50	11	3	.....	32	7	31	7	449
2nd.....	689	77	12	1	10	1	153	17	36	4	900
3rd.....	418	56	224	30	3	.....	66	9	32	4	743
4th.....	398	40	454	46	3	.....	62	6	74	7	991
TOTAL.....	1841	60	740	24	16	0	313	10	173	6	3033

*Exclusive of short-term obligations (other than serial issues). No attempt has been made to summarize short-term borrowings because of the impossibility of obtaining complete data.

(1) Exclusive of serial offerings.

(2) Includes issues sold privately as well as publicly.

(3) Less than .5 million.

likewise higher than the 1946 and 1945 figures. The total for privately offered long-term bonds, when compared with the total of all the long-term bonds offered during the year, constituted 21% of the total. This represents the highest proportion since 1942. The insurance companies continue to take large blocks of these privately placed issues. The percentage of public utility long-term bond flotations sold privately (excluding serial issues) for the past twelve years is shown in the following tabulation:

Year	Percent of Public Utility Long-Term Bond Flotations Sold Privately*
1936.....	9%
1937.....	7
1938.....	23
1939.....	39
1940.....	36
1941.....	62
1942.....	44
1943.....	9
1944.....	20
1945.....	14
1946.....	13
1947.....	21 ¹

(1) Includes all flotations regardless of size.

* Excludes serial issues.

Issues with serial maturities as indicated by the available data total only \$16 million for the year. This includes two serial issues of the fourth quarter of 1947 not previously mentioned. They are the \$1 million Southern Colorado Power Company serial notes and the \$1.9 million Pittsburgh Railways 1½% to 3% car trust bonds due serially in semi-annual installments from 1948 through 1955. Both of these issues were privately placed. If these total figures can be accepted they indicate a gradual decline in the offering of such securities.

Although the volume of preferred stock issues is somewhat short of the record year 1946, the \$313 million total exceeds other recent years in the series substantially.

The thirty-year bond continues to be the most widely used of all the possible terms in the long-term debt offerings. Constituting about 52% of the year's total of 95 issues, it is running close to the five-year average of about 50%. As noted from the following tabulation, the private offerings constitute a larger percentage of the 25-year-or-less issues,

TABLE VI—SUMMARY OF YIELD AND COST DATA OF PUBLIC UTILITY LONG-TERM DEBT ISSUES OFFERED PUBLICLY (EXCLUSIVE OF SERIAL MATURITIES), 1947.

Quarter	Offering Yields			Underwriters' Commissions			Estimated Incidental Expenses			Cost to Company		
	Range	No. of Issues	Weighted Average	Range	No. of Issues	Weighted Average	Range	No. of Issues	Weighted Average	Range	No. of Issues	Weighted Average
	% %		%	% %		%	% %		%	% %		%
1st.....	1.42-4.00	7	2.65	.003-.61	4	.47	.003-.14	2	.003	2.65-2.74	2	2.73
2nd.....	2.50-3.10	19	2.74	.32-1.875	18	.61	.42-.91	7	.58	2.63-3.19	7	2.92
3rd.....	2.62-4.00	15	2.74	.33-1.125	11	.599	.40-.924	11	.613	2.67-3.27	11	2.80
4th.....	1.82-4.07	22	2.99	.213-1.99	18	.646	.328-1.80	18	.542	2.86-4.19	17	3.07

¹ Number of issues actually used in computing the corresponding weighted average.

whereas the public offerings constitute a larger proportion of the longer-term issues: have necessitated the acceptance of no more than "token" payments for services rendered.

Term in Years	Large Long-Term Debt Issues ¹ Offered During 1947 ²			
	Number of Public Offerings	Number of Private Offerings	Combined Public and Private	
			Number	Per Cent
Under 20.....	3	11	14	14.7
20.....	2	3	5	5.3
21 through 24.....	1	1	2	2.1
25.....	4	6	10	10.5
26 through 29.....	2	1	3	3.2
30.....	37	12	49	51.6
31 through 34.....	1	0	1	1.0
35.....	6	2	8	8.4
Above 35.....	3	0	3	3.2
TOTAL.....	59	36	95	100.0

(1) Includes all issues in excess of \$1,000,000 principal amount.

(2) Excludes serial issues.

Table VI gives a summary of offering yields, underwriters' commissions, estimated incidental expense, and cost to company of capital from publicly-offered long-term debt for 1947. The weighted average of offering yields of 2.65% for the first quarter of 1947 was the lowest average in the ten-year period, except for the second quarter of 1946 when the weighted average was 2.62%. Although the weighted averages offering yields for the four quarters of 1947 continue low relative to the prewar years, with the exception already noted, they appear to be slightly on the upgrade. This is in line with the recent tendency of the interest rate to firm up.

The weighted average of underwriters' commissions continued exceedingly low during 1947 with .47% in the first quarter of 1947 reaching an all-time low. The weighted averages for underwriters' commissions for the four quarters of 1947 give a good indication of the results of competitive bidding for utility securities as prescribed by the regulatory commissions. Possibly rock-bottom has not yet been reached—early reports on utility financing in 1948 substantiates this view. However, it appears doubtful if the spreads will continue to decline much further, especially with the growing hostility of many of the underwriting firms to the competitive bidding requirements which occasionally

The weighted averages for estimated incidental expenses for the four quarters of 1947 compares favorably with the figures for 1945 and 1946 and for previous years. The abnormally low figure for the first quarter of 1947 was based on the statistically inadequate result of using only two issues, one of which was a \$200,000,000 American Telephone and Telegraph Company debenture issue.

Although the weighted average of cost to company of capital of the first quarter of 1947 is the second lowest in the ten-year series, the use of only two issues again shows that, rather than premising a general conclusion, one might better say that the cost of capital to the American Telephone and Telegraph Company continues low. The other three quarters indicate, on the other hand, that relative to 1945 and 1946, the cost of capital to the public utility industries rose somewhat in the latter part of 1947. The 3.07% weighted average for the fourth quarter, based on seventeen issues, is the highest since the third quarter of 1944 and indicates that possibly the low point reached in early 1946 is definitely passed and probably will not return, remaining only as a pleasant memory in the history of utility financing.

High-lights of the Year's Financing

American Telephone and Telegraph Company
23³/₄'s of 1957. This issue was an authorized

issue of \$360,000,000 par value of convertible debentures and was by far the largest issue offered during the year. Over \$348 million of this issue was sold at par through rights. Accurate statistics are not available on this issue for part of the issue not subscribed was issued via the exchanges, although on this later portion the market price stabilized at around 108.50% of par.

American Telephone and Telegraph Company 2 $\frac{3}{4}$'s of 1982. This issue of \$200 million debentures, the \$100 million *Pacific Telephone and Telegraph Company* 3 $\frac{1}{8}$'s of 1987, the \$200 million *American Telephone and Telegraph Company* 2 $\frac{7}{8}$'s of 1987, the \$125 million *New York Telephone Company* 2 $\frac{3}{4}$'s of 1982, and the \$40 million *New England Telephone and Telegraph Company* 3's of 1982 coupled with the \$360 million issue described above indicate the importance of the telephone industry in the volume of utility financing during 1947.

United Gas Corporation 2 $\frac{3}{4}$'s of 1967 offered in August at 100.00% of par was the largest, excluding the telephone convertible debentures offered to stockholders, issue offered privately during the year. This issue was in the principal amount of \$116,500,000.

Northern States Power Company (Wis.) 2 $\frac{5}{8}$'s

of 1977 were offered publicly in April at 101.25% of par to yield 2.57%. This \$19 million issue had the lowest cost to company of 2.62% for the year. Although this does not reach the record low offering yield of the previous year set by the Hackensack Water Company 2 $\frac{3}{8}$'s, nor the record low coupon rate set by the Madison Gas and Electric Company 2 $\frac{1}{2}$'s of 1976 of the previous year, its low cost to company was substantially below the quarterly weighted averages.

Southern California Edison Company \$41 million 4.48's, par \$25, offered in May at \$29.25 to yield 3.82% was the largest issue of public utility preferred stock offered during the year. The next two largest preferred stock issues were also issued by Southern California Edison Company.

American Water Works Company, Inc. \$5 par value common stock issue offered at \$8 was the largest common stock issued floated during the year. This resulted in proceeds to the company of about \$23.5 million.

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Book Reviews



Cummunitas: Means of Livelihood and Ways of Life. By Percival Goodman and Paul Goodman. Chicago, Illinois; University of Chicago Press, 1947. pp. 141, \$6.00.

Walter Blucher's terse summary in *News Letter* of the American Society of Planning Officials introduced me to this book—rather bluntly. He outlined it with apparent ease and comprehension and then concluded: "To this reviewer, it is a jumping mixture of criticism, economics, philosophy and architecture, adding up to an indigestible hash."

My next contact with the book was a casual reading of the dust jacket. I learned that the dignified University of Chicago Press held that this \$7.50 book of theirs was the product of a chess player "hopped up with benzedrine." This apparently, was a good thing. Then I noted that the Press had changed its mind; the book was available for \$6.00. "No wonder," I thought. I next looked over the table of contents and bumped into "paradigm," "neo-functionalism," and "ameliorative necessity." I recalled the Goodmans' proposal to dig up Central Park and erect buildings for light industry and business there along a main artery of transportation. While I was trying hard to recall that their plan had had some good points, too, my eye lit upon the closing line of the preface, "Thus, in general, the brothers [Goodman] can do together what together they could not do separately."

If this review is unfair, consider the mitigating circumstances. The strange thing about the book, for one with such an introduction as I had, is the large number of stimulating ideas it contains, and the clear way in which they are presented. The Goodmans cover the ground set out for themselves very well. And their general method is good. They want to describe community planning in the past hundred years in terms of certain "types." The three types are the greenbelt, where the home is protected from industry; the industrial type, where the home

is not protected; and the regional, which attempts a new integration. These types suffice as a way of introducing most of the important plans.

The next thing they set out to do is to describe alternative solutions to the "essentially modern" problems. These problems are in terms of technology, standard of living and surplus, and political authority (plus consideration for the geography and history of a place). Since these are the criterion problems by which plans are to be judged, the three model solutions are couched in terms of different combinations of consumption, political power, and technology: a city of efficient consumption (where luxury consumption is promoted), a region where the difference between production and consumption is eliminated (which I found very fuzzy), and one where necessities are provided through seven-year conscription. (After that "comes the revolution and we'll all have strawberries and cream.")

Manifestly, the quality of this second main part of the book depends upon the understanding with which they have contrived the pattern of models, and their skill at describing them. My basic objections to the book are (1) that they have not made their thinking clear on the question of surplus (and that is important since they call their book "a general theory of surplus technology"); (2) they have not shown that theirs are the only alternatives of importance in illustrating their problem; and (3) they feel so safe behind their hypothetical method with its detachment and impersonality that they slip into irresponsible, careless, statements. I believe that the hypothetical method need not be used irresponsibly but I note that in most of the book the methods make it difficult for one to know whether the Goodmans are saying what *they* mean, what other people mean, or what other people might mean. This situation the Goodmans seem to enjoy. They also enjoy off-hand, quick generalization. Maybe it is mere personal preference but I dislike half-truths more when they are tacked onto a formidable and respectable methodological structure.

Readers of this *Journal* will take particular interest in their position on "surplus." They are free of any theory of unearned increment, injustice, or conflict in society (a position emphasized by a method which poses alternatives rather than describes resolution of conflict). As I understand them they are completely in the camp of Keynes' idea that one man's gain is not another man's loss when the alternative is idleness of resources. Yet some of their more flippant and offhand criticism is aimed at their bedfellow as if he were their chief opponent. Similarly, their airy dismissal of planning to avoid full employment as "vast means to small objects" suggests a little too hasty a statement in a book which assumes the "surplus" which comes with full employment.

Those with a thorough grounding in some subject may stop reading this book when they come upon one of its half-truths; and those who are sampling knowledge may run off part way though fascinated with one of its clever ideas. While, as a result, few may finish it, no one will go to sleep reading it. And the illustrations, diagrams, and sketch plans are excellent.

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County Town. By Janet Glaisyer, T. Brennan, W. Ritchie and P. Sargent Florence. London: John Murray, 1946. pp. 313. \$6.30.

The basic purpose of this survey was "to provide comprehensive data upon which an integrated plan could be built for the redevelopment of Worcester." In this it represents the most complete urban analysis ever to come to the attention of this reviewer, particularly as to economic and sociological factors. Secondly, it was intended to serve as an example of analysis and methods which might be applied elsewhere. Here again it appears to have succeeded admirably.

One familiar with the problems of present-day American cities finds an almost constant thread of analogy with such problems. Particularly striking is the similarity of the problems in the older cities of the United States where differences with conditions as revealed in Worcester become only a matter

of intensity. The survey emphasizes, for instance that, in spite of diminishing family-size, past housing programs have concentrated too much on medium-size house with not enough provision for the larger family. Attention was also directed to the increasing proportion of accommodations for such individuals. This coincides precisely with the situation in most American urban centers.

The survey, begun in November 1943, was undertaken by the Commerce Department of the University of Birmingham at the invitation of the Worcester City Council. The project was under the direction of P. Sargent Florence from the faculty of Commerce and Social Science of the University. Significantly conforming to the best thought in planning today, this study is not limited to industrialized urban Worcester itself but includes the wide area around it with which it is economically and socially interdependent. In making this approach, however, the survey team encountered the lack of uniform statistical data especially when the area studied overlapped established political jurisdictions, thus duplicating experience here in making planning studies of metropolitan areas.

A mere glance at the table of contents will reveal how far the art of science of urban planning has progressed beyond merely platting physical improvements for the city beautiful. In fact this survey goes into details beyond the scope of the most recent and most advanced city or metropolitan plans in this country. It deals, for example, with such problems as "moral welfare and treatment of delinquency and abnormality," "disposal of the dead," "religious institutions and activities," and "use of leisure time" and in Chapter VIII, entitled "Health and Amenities," we find this recommendation: "New ventures in social relations in a city are proposed in the form of School Stewards to make contacts with parents and between school and clinic; and of Mothers' Helps to let married couples have an occasional evening out together, free from the care of children."

Likewise in the field of economics, involving the industrial and retail distribution characteristics of the Worcester area, it indulges in far more detailed analysis than urban planners here find themselves permitted or justified in undertaking. In analysing the state of the glove industry in Worcester, for instance, consideration was

given not only to matters of sources of raw materials, markets and technological changes but also to the good "reputation" of the industry and problems of "labour." In case of the latter, care was taken to point out the position of both the employer and the craftsman.

During the course of the industrial investigation phase of the study criticisms and suggestions were sought from industrialists. Among the suggestions noted in connection with the quality of industrial opportunity the industrialists urged that "a better standard of general education is preferable to purely technical training in schools, since a particular job could best be learnt in the factory, where youths also learn to get on well with their workmates." In addition Worcester industrialists maintained that "labour of quality requires certain industrial amenities if it is to stay in the community" and among other things, therefore, recommended more adequate public recreational facilities.

The thoroughness of the survey is attested to by the fact that, in addition to its surprisingly comprehensive scope, statistical indices and findings of the experts were checked against a representative sample of public opinion which it was stated proved useful in forming conclusions. The sample was based on a visit to every fifteenth house, the results of which canvass were satisfactorily tested by checking against official statistics. Information covered in these house-to-house questionnaires included: family composition, size of dwelling and husband's occupation: and habits and preferences regarding facilities for children, travel to work, leisure-time activities, shopping and housing. Another check was made by means of a much shorter questionnaire distributed to the some 12,000 houses supplied with electricity out of the approximate total of 15,000 houses. A third questionnaire was circulated to the Women's Institutes and Parish Councils of the central and south district of Worcestershire, primarily to assist "in determining the extent of Worcester's influence as an absorbent of labour and as a center for marketing, distribution, specialized health and professional services, educational and recreational facilities."

The technique used in presenting the material of the survey is one which might be followed with profit in the presentation of similar reports so crammed full of detailed

facts. At the beginning of each chapter there is a statement on the substance of the chapter to follow. Printed in italics these introductory statements run from several paragraphs to several pages. Then at the end of each chapter there is either a summary or a list of recommendations and in some cases both. These helps serve not only to aid the reader or the student to organize the material in his own mind, but they can serve well for both review and reference purposes or for a quick scanning of the highlights of the survey.

While most of this 320 page volume is concerned with fact-finding and research as a background for planning, the final chapter presents some fairly sketchy plans "to demonstrate a method of redevelopment that can be used as an outcome of the work of the survey."

The book concludes with the expression of opinion that, "a prime function of the planners should be to assess public expenditure in the light of its social benefit." It cautions that continuing research and continual revision of the master plan in the light of new information and the constantly evolving standards of practice are essential to sound urban development.

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Economics of Public Utilities. By Emery Troxel. New York: Rinehart & Co. Inc., 1947. pp. 892, inc. index \$5.75.

The recently asserted "decline of the public utility concept" has not yet, at least, reached the point of discouraging all textbook writers in the field. Within the past few months two new texts have appeared—a short and elementary book on *Public Utility Regulation*¹ by a political scientist, and the more ambitious volume under present review, by an economist. Though designed primarily for undergraduate courses, Troxel's book goes more deeply into the economic analysis of utility pricing than do the earlier treatises.

As might be expected of an author writing in 1947, Troxel gives much attention to the

¹Herman H. Trachsel (Chicago: Richard D. Irwin, Inc., 1947).

Hope Natural Gas case² with respect to its bearing on problems of valuation and of rate of return. But a more significant distinction between the present book and its predecessors lies in the treatment of various aspects of rate-making policy other than those related directly to the rate base. Thus, entire chapters are devoted to such topics as these: "Continuity of Earnings Regulation"; "Cyclical Control of Prices"; "A Proposal: Marginal-Cost Pricing"; "Managerial Control of Pricing"; "Pricing for Municipal Services"; and "Pricing of Regional-Projects Services."

These are fresh, or freshly emphasized, topics; and their appearance as subjects of separate chapters shows the influence of recent developments in general economic theory as well as in the practice of utility rate-making.

In laying stress on these newer aspects of rate theory, the book reveals a characteristic common to pioneer contributions: namely, that of uneven quality in exposition and in conclusions. For example, the chapter on cyclical rate flexibility is the best discussion of the subject known to the reviewer; while the chapter on "Managerial Control of Prices" effectively calls attention to an important fact generally overlooked in the literature of utility regulation—the fact that the management of even a regulated utility enjoys much discretion in the choice of a rate-making policy. The discussion of the nature and functions of rate discrimination (chapters 26 to 28), while too lengthy and repetitive, is a great improvement over the more conventional treatments which fail to distinguish between discriminatory and non-discriminatory rate differences and which too often mislead the reader by telling him that discrimination in railroad and utility rate-making is forbidden by law. On the other hand, the important and controversial subject of "Marginal-Cost Pricing" (Chapter 20) has not been treated in such a manner as to clarify the issues between those writers who would adopt this esoteric form of rate-making and those other writers who would try to approach the same objectives by an adroit system of multi-part pricing and of class discrimination.

Clearly, in the reviewer's opinion, the virtues of this book greatly outweigh its

shortcomings. Not the least of these virtues is that of showing how much richer is the field of utility rate theory than the earlier treatises with their emphasis on "fair value" might lead one to infer.

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Public Utility Regulation. By Herman M. Trachsel. Chicago: Richard D. Irwin, Inc., 1947. pp. x, 538. \$5.00.

Professor Trachsel of the State University of Iowa, in an elementary treatment of the principles of public utility regulation, authors one of the few text books published since the start of the late war. The point of view presented might be described as that of the political scientist and professedly aims at stressing of the administrative aspects. The quite readable, informational and descriptive accounts of regulatory agencies and trends in the direction of rural electrification and federal power projects would seem to render the textbook adaptable for possible use as an elementary outline in beginning courses in junior colleges and perhaps in institutions offering public utilities in a department of political science. The reviewer would question whether a political science treatment without more is satisfactory, even for an undergraduate political science course, when *inter alia* acceptable regulatory techniques involve, as well, considerations of management, finance, accounting, engineering, statistics, economics, law, *et cetera*. The professed effort to stress administrative aspects is singularly short of accomplishment and the under-emphasis of the technical aspects is illusory.

Part I, "Nature of a Public Utility," evidences some helpful pedagogical steering on the characteristics of a public utility but hinders somewhat an analytical approach based on a study and analysis of the cases. The author's summaries of the leading cases leave the conclusion, in effect, that the only criteria are those the legislatures decree. The purposes of utility regulation presented confirm the author's general belief in the efficacy of regulation if given a chance within its sphere and commendably avoids either a pro- or anti-utility point of view.

²Federal Power Commission v. Hope Natural Gas Company, 320 U. S. 591 (1944).

Part II, "Agencies of Regulation," attempts to cover the local, state and federal levels and while one chapter on state commissions (VIII) is professedly critical, the overall judgments passed are lacking in critical quality. The unsupported general statements, the pro-regulatory bias and the perhaps too ready acceptance of the agencies' self-evaluation are to be offset against the clear and readable accounts and in particular of the federal regulatory agencies.

Part III, "Administrative Problems," covering principally valuation, rate of return, rates, accounting and reporting and public utility holding companies in the order named, is misleading as to title and fails especially to explore the technicalities of the economics and/or law involved. The practice of giving short-hand versions or excerpts of the leading law cases is confusing in partial result. Since the decision of the United States Supreme Court in the *Hope Natural Gas Company* case of 1944, the traditional organization and presentation of the earnings problem might well have given way to an analysis initiating directly within the framework of the "end result" doctrine.

Part IV, "Special Problems," is perhaps the

best descriptive portion dealing with rural electrification, federal power projects including the Tennessee Valley Authority, and municipal ownership. Again, the end effect is lacking in critical stature, evidences pro-government bias to some degree and is somewhat removed from professed emphasis of the administrative problems with too little significant-factual evidence. One noticeable omission of an interesting problem is any analysis of the effects on utilities of atomic energy. Despite the industrial effects at this stage being uncertain, the final impact may be revolutionary.

Some evidence of hasty editing detracts from the scholarship. The headings are sometimes misleading, e.g., page 84. Loose analogies are prevalent with some outright errors and inconsistencies, e.g., pages 118, 127, 163, 207, 209, 214, 227, 287, and 518 to refer to a few apparent slips. As an authoritative sourcebook, the chief criticism is the failure to cite the original or first sources. Also, the variously incompleeted footnotes mar the appearance.

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